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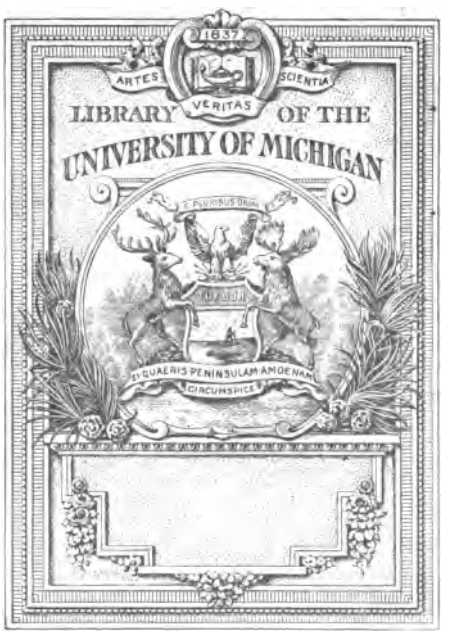
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WESTMINSTER HOSPITAL

REPORTS.

EDITED BY

R. G. HEBB, M.A., M.D., F.R.C.P.

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ORIGINAL ARTICLES.

EPISTAXIS.

By Dr. DE HAVILLAND HALL.

While the symptomatic treatment of disease, irrespective of the morbid state underlying the symptoms, is deservedly held up to obloquy, much benefit will often result if a single symptom is carefully examined from all points of view. Take for example epistaxis; we should all of us ridicule the medical practitioner who would regard this as a disease *per se*, and requiring merely local treatment. On the other hand, a man of wide clinical experience will see in this symptom evidence of disease of distant organs, and may thereby be enabled to give such advice as may be necessary to avert a fatal issue, or at all events, if this should occur, it would not come upon him as a surprise. This view of the question is well brought out in a presidential address given by Mr. Prescott Hewett at the Clinical Society in 1873.

"Severe epistaxis spontaneously occurring after the middle period of life. What apparently could be of so little importance clinically? How little thought, commonly, would be bestowed on nose-bleeding under such circumstances, and yet it is ofttimes the little cloud no bigger than a man's hand." He then quotes the case of a healthy-looking middle-aged gentleman—temperate in all things; no marked disease in any one of his organs, the only thing detected was a little thickening of the radial artery at the wrist, the coats of which vessel were somewhat rigid. "This was all, but it was quite sufficient to lead to the inference that the minuter arteries in different parts were in the same condition as, probably in a more advanced state of degeneration than, the radial."

In the course of three or four years the nose-bleeding recurred from time to time with more or less violence; then there was a

slight outpour of blood in the brain, from which the patient recovered; 18 months later extensive bleeding in the brain and death in a few hours.

The term epistaxis, originally applied to all kinds of hæmorrhages occurring drop by drop, has since the middle of the eighteenth century been restricted to hæmorrhage from the nose. But it must be remembered that when blood flows from the nose its source may be at a distance, the nostrils serving merely as channels, or the blood may come from the nose itself. Hence, under the term epistaxis are included two kinds of hæmorrhages, which may differ very much in their nature. I.—Hæmorrhage in which the blood merely passes *through* the nose. II.—Hæmorrhage in which the blood comes *from* the nose. Under the former category are comprised bleeding from pharynx, nasopharynx, the accessory cavities of the nose, larynx, lungs, and stomach, and cases of fractured base of the skull. With none of these varied conditions am I concerned in the present paper. My object is to direct attention to the second group. At the outset I would, however, insist on the importance of bearing in mind the possibility that, in cases of apparent epistaxis, the blood really comes from some other organ, the nose representing the passive part of a conduit. And *vice versa*, it should not be forgotten that in cases of true epistaxis the blood may trickle down the throat and be swallowed, finally to be vomited up, simulating hæmatemesis. Epistaxis may also simulate hæmoptysis, as in a case* where a varicose ulcer of the posterior lower part of the septum and of the corresponding surface of the right nostril led to repeated hæmorrhages, and gave rise to the fear of hæmoptysis.

The causes of epistaxis may be arranged according as the local or constitutional element in the cases plays the most important part in bringing about the hæmorrhage. In many cases it is difficult to decide which is most at fault.

I. The local causes of epistaxis may be grouped under the following heads:—

1. Site of predilection.
2. Affections of the mucous membrane of the nose, acute, chronic, and vaso-motor rhinitis.
3. Tuberculosis, syphilis, &c.

* Centralblatt für Laryngologie, vol. iii., p. 372.

4. New growths.
5. Worms, maggots, centipedes, leeches, &c.
6. Traumatism.

II. The constitutional causes of epistaxis are very numerous; the most important are the following :—

1. Alteration of lateral pressure in the blood-vessels.
   (*a*) Increased arterial pressure, as in the granular contracted kidney, with hypertrophy of the left ventricle, and in plethora.
   (*b*) Increased venous pressure, as in diseases of the heart, lungs, liver, and spleen; in tumours of the neck, *e.g.*, bronchocele; and in paroxysms of whooping cough.
   (*c*) Diminished pressure of air, as in ascending high mountains and ballooning.
   (*d*) The effect of great cold or great heat, or a sudden change from cold to heat.
2. Alterations in the composition of the blood, as in scurvy, purpura, hæmophilia chlorosis, anæmia, pernicious anæmia, leukæmia, and malaria.
3. The action of certain drugs, *e.g.*, phosphorus, chloralamide, the salicylates, &c.
4. Acute specific diseases.
5. Diseases of the blood-vessels, *e.g.*, atheroma after syphilis or alcoholism, fatty degeneration as in acute yellow atrophy.

Nearly all the advance that has been made in the scientific treatment of epistaxis dates from the introduction of the rhinoscopic method of examining the nose. When the interior of the nose came to be systematically inspected, it was found that in a large number of cases of epistaxis the blood could be seen to issue from a spot on the anterior part of the septum, and from the frequency with which this connection existed, this spot has come to be designated as the *site of predilection* of nasal hæmorrhage. This spot is usually at a distance of about half an inch from the anterior end of the cartilaginous septum. Kiesselbach* reports that out of 35 cases of epistaxis in adults, in 33 the source of the hæmorrhage was found on the septum, and in the great majority of cases on the anterior lower part of it, in one on

* Centralblatt für Laryngologie, vol. i., p. 204.

the inferior turbinated, and one on the inferior turbinated and the septum. Bandler's* statistics are much the same. Out of 54 cases of epistaxis, in 17 cases the bleeding spot could not be found. In the remaining 37 cases the hæmorrhage took place from the anterior part of the septum, in a few on a level with the floor of the nasal cavity, and only in one case at the level of the middle turbinated.

Hæmorrhage occurs only very rarely from the roof of the nasal cavities, and still less frequently from normal turbinated bodies, more frequently, however, from acutely swollen turbinated bodies with soft surfaces. The appearances seen on rhinoscopic examination vary considerably. In some cases a varicose or aneurysmal condition of the vessels on the septum may be distinctly recognised, in others a small patch of erosion or ulceration the size of a poppy or hempseed to a lentil may be seen. Sometimes the mucous membrane is soft, spongy, and slightly elevated, while at others the spot looks pale and atrophied; occasionally the only change to be distinguished is a slight alteration in polish and colour. Whatever may be the local condition, a characteristic symptom is that on gently rubbing the part with a smooth sound it bleeds. As the result of a previous hæmorrhage the spot is usually covered with a brown or black crust. As regards the source of the blood supply to the nose, it is to be remembered that this is derived from the superior coronary artery, a branch of the facial, which runs along the upper lip, lying between the mucous membrane and the orbicularis. It gives off two or three vessels which supply the nose, and one, named the artery of the septum, ramifies on the nasal septum. Advantage may be taken of the superficial position of the superior coronary artery to compress it in cases of epistaxis.

2. Under the second heading is included nasal hæmorrhage, coming on as a result of change in the mucous membrane of the nose—*e.g.*, acute, chronic (hypertrophic and atrophic), and vasomotor rhinitis. In acute rhinitis there is rarely any great amount of bleeding, seldom more than is sufficient to tinge the secretion; the same may be said of chronic hypertrophic rhinitis; in chronic atrophic rhinitis, on the other hand, it is sometimes profuse, especially when the irritation caused by the

* Centralblatt für Laryngologie, vol. iv., p. 305.

presence of the hardened crusts leads to their forcible removal. In the majority of cases of vaso-motor rhinitis the engorgement of the erectile tissue of the nose is relieved by a serous exudation; occasionally, however, this is tinged with blood, and in rare cases a purely bloody fluid may be poured out.

3. In diseases of the nose attended with ulceration, such as syphilis and tuberculosis, the discharges are frequently blood-stained, but it is not usual to have much hæmorrhage.

4. Polypi and papillomata do not usually give rise to hæmorrhage, but in exceptional cases there may be slight epistaxis from congestion; on the other hand, it is a frequent symptom of malignant new formations, hence the presence of a growth in the nose attended by hæmorrhage, especially if it be at all profuse, should suggest the probability of the growth being malignant. Angiomata of course readily bleed, and may be the source of serious loss of blood.

5. The presence of worms, maggots, and centipedes may, by the irritation they produce, set up slight bleeding; leeches, however, sometimes give rise to severe hæmorrhage.

6. Traumatism furnishes the most familiar example of epistaxis. Rare indeed must that schoolboy's experience be who has not had personal experience of a "bloody nose." In a patient of mine, on whom my colleague, Mr. Spencer, operated for nasal stenosis by removing the inferior turbinated bones, very profuse secondary hæmorrhage followed the operation. The left nostril had to be plugged posteriorly three times on account of recurrence of the hæmorrhage before it finally ceased.

III. In treating of the constitutional causes of epistaxis, I would first direct attention to the—

1. Alteration of the lateral pressure in the blood-vessels as a cause of loss of blood.

   (*a*) One of the most common causes of epistaxis in middle life is the increased arterial pressure met with in the granular contracted kidney associated with hypertrophy of the left ventricle. I would therefore insist on the importance of the examination of the urine in cases of epistaxis. The hæmorrhage from the nose met with in cases of aortic insufficiency may also be attributed to the increased pressure in the blood-vessels.

(*b*) Passive congestion of the nasal mucous membrane occurs whenever there is any interference with the return of blood from the head, *e g.*, in diseases of the heart, especially mitral stenosis; in pulmonary affections such as bronchitis and emphysema. In pneumonia* epistaxis is sometimes observed. It may be an early symptom or it may occur as one of the critical phenomena. In whooping cough† epistaxis frequently occurs during the paroxysms, "and whilst it shows how great is the interference with the circulation, it is often a most valuable remedy."

One of the most curious features about epistaxis is the rôle played by affections of the liver in its production. Cirrhosis has long been regarded as a frequent cause of nose bleeding, in fact in a middle aged man the occurrence of epistaxis should at once suggest the suspicion of cirrhosis of the liver, almost as much indeed as the presence of bleeding piles. Galen was aware of this connection, and pointed to it as a guide in treatment. Harkin and Verneuil have gone much farther than this. Harkin‡ says, "The result of observation and experience leads me to attribute its (epistaxis) origination, in the first instance, to functional and often to structural disease of the liver, as the hæmorrhagic diathesis is in my mind a dyscrasis, a secondary affection, chiefly due to chronic hepatic derangement." Verneuil§ maintains that latent affections of the liver may provoke or keep up obstinate epistaxis. He has recorded the histories of three cases of rebellious epistaxis, in which medication was powerless and tamponing was equally unsuccessful, whereas on the application of a large blister to the right hypochondrium an immediate cure was obtained.

In diseases of the spleen epistaxis is a frequent occurrence; it is met with in acute splenitis,|| for example, and in splenic leukæmia.

Direct pressure upon the veins of the neck may lead to interference with the return of blood from the nose, hence

* Russell Reynolds' System of Medicine, vol. iii., p. 636.
† Ibid., vol. i., p. 56.
‡ Nature and Treatment of Epistaxis, p. 3.
§ Bulletin Général de Thérapeutique, July 30th, 1888.
|| Reynolds' System of Medicine, vol. v., p. 171.

epistaxis is met with in some cases of bronchocele and other tumours of the neck. A case of epistaxis* has been recorded as having ceased after the removal of enlarged tonsils, and the question was raised as to whether it were possible that the hypertrophied tonsils were able to exercise sufficient pressure, and thus to have led to congestion of the nasal mucous membrane.

(*c*). The effect of rarified air, as in mountaineering and ballooning, in producing epistaxis does not require any lengthy mention; and the same holds good of the

(*d*) Effect of extremes of heat or cold, or sudden change from one to the other.

2. In diseases attended with alterations in the composition of the blood epistaxis is a prominent symptom. It is met with in hæmophilia, it is the most common form of mucous hæmorrhage, in purpura, it also occurs in scurvy, chlorosis, anæmia, and pernicious anæmia. In leukæmia Mosler† found epistaxis in 35 out of 64 cases. In this disease it is frequently an early symptom, and it represents the usual form of hæmorrhage. In all these affections epistaxis is often profuse and difficult to control, and it may be the immediate cause of death. It is of frequent occurrence, and in some cases there is a daily loss of blood. Epistaxis is also met with in ague, "sometimes even recurring periodically as the sole symptom and effect of malarial poisoning, until stopped by the administration of quinine."‡

3. Certain drugs have been known to cause epistaxis; it is met with for instance in phosphorus poisoning;§ it has been noted by many observers in patients with acute rheumatism undergoing the salicylic treatment;‖ it has followed the administration of chloralamide;¶ and doubtless numerous other examples might be adduced of the action of drugs in the production of epistaxis.

* Centralblatt für Laryngologie, vol. iv., p. 437.
† Baumgarten, Die Epistaxis, Wien, 1886, p. 21.
‡ Fagge's Medicine, vol. ii., p. 96.
§ Guy and Ferrier's Forensic Medicine, Fourth Edition, p. 442.
‖ Garrod's Treatise on Rheumatism, p. 215.
¶ Brit. Med. Journ., 1891, vol. i., p. 1123.

4. Epistaxis is met with in all the acute infective diseases, especially in enteric fever. The occurrence of epistaxis in a young adult with feverish symptoms should suggest a suspicion of enteric fever, as it is rather a frequent symptom in this disease, coming on soon after the commencement of the fever. It may even be so profuse as to destroy life. Epistaxis also occurs in some cases of miliary tuberculosis of the lungs,* and this is the more important since the differential diagnosis between enteric fever and miliary tuberculosis is often difficult, and the supervention of epistaxis might lead the unwary to make the diagnosis of enteric. Epistaxis may occur in the prodromal stage of measles (in rare cases the loss of blood may be so great as to endanger life), varicella, typhus fever, erysipelas, and, less frequently, in scarlet fever, but when it occurs at the end of scarlet fever it is to be referred rather to the kidney affection than to the fever. It is very frequently met with in diphtheria, even when the diphtheritic process is not localised in the nose.

   Epistaxis was met with in the recent epidemic of influenza, and was generally due to the catarrh, but in some cases a special hæmorrhagic tendency seems to have developed during the course of the disease.

In all these infective diseases the symptom which precedes epistaxis is acute hyperæmia and acute catarrh of the nasal mucous membrane, and the occurrence of the hæmorrhage is often determined by the presence of vascular changes at the site of predilection. The higher the temperature rises and the more quickly it comes on, so much the greater will be the hyperæmia of the nasal mucous membrane and the consequent chance of epistaxis, hence the frequency of its occurrence in relapsing fever. Dr. Felix Semon† made careful observations in a severe epidemic of this disease, and found that epistaxis was a critical symptom in more than 30 per cent. of the cases.

5. Epistaxis in old people, if of arterial origin, is due to miliary aneurysms and endarteritis; if of venous origin, to varices; and if of capillary origin, to fatty degenera-

* Fagge's Medicine, vol. i., p. 1008.

† Morell Mackenzie's Diseases of Throat and Nose, vol. ii., p. 841.

tion.* Owing, however, to senile atrophy of the nasal mucous membrane and impermeability of the vessels, epistaxis is comparatively rare in old age. The changes in the vessels met with as a result of syphilis and alcoholism may give rise to hæmorrhage from the nose. In acute yellow atrophy of the liver epistaxis is met with in common with hæmorrhages from other mucous surfaces.

Epistaxis is rare in the newly born, and occurs extremely seldom in the suckling; but from the second year of life up to the period of puberty it is more and more frequently observed. In adult life it becomes rare, but the tendency may again manifest itself in old age. Epistaxis often shows itself in the young, who later on become the subject of piles or of rheumatism,† and when occurring habitually, it has been considered by some as a symptom of latent tuberculosis. The male sex is more prone to it than the female. Joal‡ points to the existence of a catamenial and copulative epistaxis. His observations show the influence of masturbation and the importance of the sexual factor in the coming on of epistaxis in young people. This is only one of the numerous facts which evince the close relationship existing between the nose and the sexual organs. Joal does not, however, regard every epistaxis at the period of puberty as having a sexual origin. There are some rare cases on record in which erotic excitement, anger, or grief have acted reflexly, and epistaxis has resulted. In all probability abnormal conditions at the site of predilection must have existed in the cases.

As regards the question whether there exists a form of epistaxis vicarious to menstruation, I cannot agree with the positive assertion made by Dr. Herman,§ viz., that "cases in which the menstrual flow is replaced by a flow from some other part do not exist." Dr. Fagge‖ quotes the following case recorded by Obermeir, in vol. iv. of Virchow's "Archiv": "A girl of fifteen, after once menstruating in the ordinary way,

* Centralblatt für Laryngologie, vol. vii., p. 347.
† Ibid., vol. i., p. 205.
‡ Ibid., vol. v., p. 458.
§ Fowler's Dictionary of Practical Medicine, p. 926.
‖ Principles and Practice of Medicine, vol. ii., p. 96.

began to suffer at regular intervals of a month from bleeding at the nose; this occurred two or three times a day for three successive days, and it was attended with malaise and other symptoms like those which had accompanied the natural flux. She became pregnant, and the hæmorrhage then ceased, to return six weeks after her confinement. No doubt caution is required in accepting the statements of patients as to any form of vicarious menstruation; but this case at least appears to be beyond question."

According to Puech,* hæmorrhage occurred in place of menstruation, from the stomach 32 times, from the breasts 25 times, from the lungs 24 times, and from the nose 18 times. Baumgarten† records three cases of epistaxis vicarious to menstruation, and points out that cases of vicarious nasal hæmorrhage occur almost exclusively at the period of puberty, at the menopause, and in rare instances during pregnancy.

Concerning the mode of onset, it may be stated that attacks of epistaxis occurring in persons prone to it are usually brought on by sneezing, blowing the nose, or slight mechanical injuries to the nose, such as result from the introduction of the forefinger into the nostril, and the itching sensation experienced in the nose in some of these cases leads to the use of the finger. The attack may, however, come on spontaneously, and even occur during sleep. Chiari‡ from his observations, concludes that the superficial vessels of the septum rupture, as the result of slight injuries, and bleed until the opening is closed by a clot. If complete thrombosis occurs bleeding ceases, and spontaneous healing ensues. But if only a lateral thrombus is formed this is easily removed by engorgement of blood in the nose during sneezing, blowing the nose, &c., or by slight mechanical injuries, and the epistaxis begins anew.

Hartmann explains the occurrence of bleeding from the particular spot on the ground that the blood-vessels come straight from the bone, and that in injuries their lumen remains patent. Probably also the close connection of the mucous membrane with the septum may tend to keep the vessels gaping.

As regards the character of the hæmorrhage in epistaxis, this

* Puech. Gazette des Hôpitaux, 1868.
† Baumgarten. Die Epistaxis. Wien, 1886.
‡ Allgem. Wiener Mediz. Zeitung, 1883, No. 24.

may vary very greatly. In some cases it may come on daily for a number of weeks, the hæmorrhage then ceasing entirely for a considerable time. In another series of cases there may be frequent, even daily, attacks of slight hæmorrhage, this condition lasting for years, or the attacks may occur at infrequent intervals, but then generally very severely. The flow of blood usually lasts for a few minutes, but it may sometimes continue with more or less intensity for hours.* The quantity of blood lost varies very greatly, from a few drops up to 12 lbs. within 60 hours.† Epistaxis is sometimes preceded by headache; in other cases, especially where the flow has been excessive, headache may follow the attack.

In some rare cases an attack of migraine ends by the coming on of epistaxis.‡

Dr. Mahomed § has drawn attention to the fact, that even when the patient is much blanched through the loss of blood, the pressure in the arteries may still remain excessive, as, for example, in cases of Bright's disease.

Diagnosis.

As I have already stated, epistaxis has to be distinguished on the one hand from cases of bleeding from the nose in which the nostrils merely form the channel for the blood, and on the other hand it must be remembered that, as mentioned on page 2, the hæmorrhage may occur from the posterior part of the nares, and the blood trickling down may simulate hæmoptysis. Anterior and posterior rhinoscopy carefully carried out will almost invariably suffice to clear up the diagnosis, and in those exceptional cases in which it fails there are usually some collateral symptoms which will prevent a mistake being made.

Prognosis.

It may be stated that, as a general rule, the tendency of epistaxis is to cease spontaneously. Indeed, I remember to have heard one of the greatest of our modern surgeons say,

* Chiari.
† Ziemssen's Medicine, vol. iv., p. 155.
‡ Fagge's Medicine, vol. i., p. 670.
§ Ibid., vol. ii., p. 451.

while lecturing on the subject, that he had never known a death directly due to loss of blood from the nose. This unfortunately is not universally true, as deaths have been recorded from this cause. In nasal diseases, with the exception of malignant new formations, a good prognosis may be given. Where the hæmorrhage is due to congestion, the combination of local and general treatment will almost invariably effect a cure. But where we have to deal with degenerative changes in the vessels, or with diathetic diseases, the prognosis is bad, and, as I have already stated, death may be immediately due to loss of blood.

In cases of granular contracted kidney and hypertrophy of the heart, the occurrence of epistaxis should warn the physician of the possible supervention of cerebral hæmorrhage or of uræmic convulsions. Epistaxis in old people with degenerate vessels also requires a guarded prognosis. If the flow of blood from the nose be too promptly arrested, one of the cerebral vessels may be the next to give way, so that in these cases attention should be directed to the state of the bowels, and if the patient be at all plethoric his diet should be carefully regulated. I have seen the neglect of these precautions in epistaxis lead to a fatal attack of cerebral hæmorrhage. In the presence of head symptoms the history of epistaxis is in favour of cerebral hæmorrhage,* as it is not uncommon to find epistaxis preceding a fatal attack of sanguineous apoplexy.

The relief to the head symptoms which often follows upon the occurrence of bleeding from the nose has suggested the artificial production of epistaxis.†

In my experience the occurrence of nose-bleed is not a favourable sign in diphtheria, whereas in enteric fever the bleeding often seems to give relief.

As already stated, epistaxis is always a grave symptom in diseases due to altered blood states, and it is not an unfrequent cause of death under these circumstances.

Treatment.

It follows as a matter of course from what I said of the importance of careful rhinoscopic examination in cases of epistaxis,

* Russell Reynolds' System of Medicine, vol. ii., p. 554.

† Centralblatt für Laryngologie, vol. ii. p. 124

that the local treatment of this condition should take the first place. This is especially the case at the outset of the hæmorrhage where, if it be at all severe, the indication is clearly to take immediate steps to control the excessive loss of blood. It is hardly necessary to say that in a large number of the cases of nose-bleed occurring in young people the hæmorrhage may be regarded as an effort of nature to relieve undue plethora, and may therefore be considered as salutary rather than injurious. In these cases all that need be done is to direct the patient to remain quiet, to keep the feet warm, the head cool, and the neck free from any constriction, as a tight collar, &c. The best position for the patient to assume is leaning back in an arm-chair, with the head supported, so that the blood may trickle out of the anterior nares. Should the hæmorrhage continue in spite of these precautions, or should the history of previous severe attacks lead one to fear a great loss of blood, then more active steps ought to be taken. And now comes the time for local treatment. If on rhinoscopic examination the hæmorrhage is seen to come from "the site of predilection" on the anterior part of the septum, the bleeding may usually be speedily arrested by introducing a small pledget of lint or iodoform gauze into the nostril and applying the finger on the alæ without, so as to bring pressure to bear upon the bleeding point.

Some authorities recommend that the plug should be soaked in a dilute solution of perchloride of iron, of the tincture of hamamelis, or some other astringent. Should there be a frequent recurrence of hæmorrhage from one nostril and a lesion be found on the septum, the most certain plan of effecting a radical cure is by the use of the galvano-cautery. The plan I carry out is to apply a 20 per cent. solution of cocaine by means of cotton wool on a holder to the affected part. Usually two applications, with an interval of a minute between them, will suffice to render the mucous membrane anæsthetic. A flat platinum burner should be heated to a dull red-heat and applied crucially to the seat of hæmorrhage. Duplay's nasal speculum will be found the most convenient for dilating the nostril while making this application, and indeed for all kinds of nasal work. After cauterising I introduce a small pledget of cotton wool smeared with carbolized vaseline or boric acid ointment. The patient should be directed to apply some

ointment to the part every night until the burn made by the cautery has healed. The success which has attended the carrying out of this line of treatment has been most marked, and my own experience is in complete accord with Chiari and others who have employed the same method.

Lavrand of Lille* records the case of a girl suffering from epistaxis whose two sisters had died from habitual nose-bleeding. Lavrand discovered the existence of small ulcerations on the lateral wall of both nostrils, and also on the septum at the level of the inferior turbinated; he cauterised these, whereupon the hæmorrhage ceased.

Bandler† has had three cases of profuse epistaxis in patients with heart disease, the hæmorrhage, nevertheless, being permanently arrested by cauterisation, and I have had a similar case myself. Beverley Robinson, however, is opposed to the use of the galvano-cautery in the treatment of epistaxis, as he has known it render a slight affection lasting and very troublesome, by producing erosions, especially hard to heal in cases of atrophic rhinitis.

Supposing, however, that the most careful rhinoscopic examination fails to reveal the immediate source of the hæmorrhage, or that the loss of blood is so excessive as to prevent, for the time being, an examination being made, what is to be done under these circumstances? I would, in the first instance, try the effect of some of the recognised popular methods of treatment, *e.g.*, the elevation of the arms above the head, the application of an ice-bag to the nape of the neck, or putting the feet into water as hot as can be borne. If these simple methods fail, recourse must, in my opinion, be had to plugging. Of this there are two varieties, anterior and posterior. The former is best carried out by taking a piece of iodoform gauze about two inches wide, the length varying according to the capacity of the nostril, and passing it up the nostril through a speculum. By this means plugging can be effected with the least amount of discomfort to the patient.

Mr. Hamilton‡ recommends the following plan: "Saturate a piece of linen material about three feet long and one inch

* Centralblatt für Laryngologie, vol. ii., p. 419.

† Ibid, vol. iv., p. 205.

‡ Brit. Med. Journ., May 8th, 1880.

wide in some astringent—tea, alum-water, or preferably, gallic acid and glycerine. This strip should be regarded as consisting of three parts, each intended for its own special position in the nostril. The end of the first portion should be grasped by the dressing forceps, and passed along the floor of the nostril and packed into the posterior nares until its presence can be distinctly felt by the finger-tip passed around the soft palate. The second portion should be gradually pressed into the roof of the nasal cavity, while the anterior nares should be filled with the remaining third. Thus every part is thoroughly tamponed. The plug should be left *in situ* until carried away by the natural secretion of the mucous membrane, any part protruding from the nostril being readily cut off by scissors."

Another plan is first to insufflate iodoform up the nostril, and then to introduce a piece of gauze saturated with a thick mixture of tannin.

Dr. Daly's * plan is so simple, and the requisites for it are so generally available, that I will give his directions verbatim. "The method is thus: Take an elongated quantity of cotton wool, lengthwise of the fibres, which when doubled upon itself will be somewhat conoidal, and completely fill the nares it is intended for, especially the posterior end; but before doubling it upon itself, fortifying the cotton by spiral turns of soft thread, such as is used by grocers, then, doubling the mass upon itself, you have a cone of cotton three or four inches long, or more, from the smaller end of which extend the strings, which ought to be tied together, the knots to include some of the fibres of the cotton at the ends. Now, if thought necessary, this mass can be saturated with a solution of alum, but preferably it may be anointed with a little lard or vaseline. Now, with a thin probe or knitting-needle in the right hand, the mass of cotton is to be caught in its fold at its larger and what ought to be the distal end of the cone, while the strings are caught in the fingers of the same hand, and you have now the cone of cotton wool extended upon your probe or knitting-needle and secured in your right hand, while with the left hand the point of the nose can be elevated, and with a rather quick thrust the conoidal mass of cotton is carried back until the yielding sensation is imparted to the hand, which indicates that the distal end of the cone has

* Brit. Med. Journ., 1891, vol. i., p. 1123.

emerged through the opening of the posterior nares into the pharynx. The slender probe or knitting-needle, or grooved-director, as you please, is now easily withdrawn by giving it a sudden retractive start, and the knotted ends of the strings are then cut off and tucked into the nares out of sight, to be easily hooked out and grasped for the removal of the cotton plug that it secures in its spiral folds."

Tamponade of the nose may also be carried out with plugs soaked in various astringents; for this purpose turpentine, a 1 to 30 solution of antipyrin, tincture of the perchloride of iron, solution of alum, &c., may be used.

Many other plans of plugging the nostrils have been adopted, one of the earliest being the employment of a piece of sheep's intestine, tied at one end, introduced into the nostril, and then distended with cold water.

Dr. Cooper Rose has designed an excellent instrument wherewith to plug the nose. It consists of an india-rubber bag, connected with a tube, which is provided with a stop-cock. The bag is introduced into the nostril in a flaccid state, and is then inflated by blowing through the tube. A modification* of Cooper Rose's instrument consists of a canula, through which the patient can breathe, surrounded by an india-rubber bag, which can be inflated when *in situ.*

A sea-tangle† tent has been used for the purpose of exercising pressure; it has, however, the great drawback of requiring a considerable amount of time before it has imbibed sufficient moisture to be of any use as a plug.

In some cases, in spite of the most careful plugging anteriorly the hæmorrhage continues, and then recourse must be had to the method of posterior plugging, but all authorities are agreed that this is not a procedure to be lightly undertaken. Sir James Paget in his admirable "Clinical Lectures"‡ mentions among the "Calamities of Surgery" the following case: "A man's nostrils had to be plugged after an operation for the removal of a fibrous polypus from his nose; an operation of much difficulty, and much doubt in its course as to what next should be done. I had completed all that seemed most difficult and impor-

* Centralblatt für Laryngologie, vol. vii., page 347.

† Ibid., vol. i., p. 316.

‡ Page 75.

tant; and then came the condition of relaxed, comparatively inattentive mind; and one of my colleagues who assisted me put a plug into the posterior nares. Through inattention the plug was made without a string attached to it with which to draw it out again. I noticed it directly afterwards, but the thing was done, and it was said that it was not worth while disturbing the patient again to alter it. But the patient died of that plug, for it could not be taken out of his nostrils, except by thrusting it from before; and thrusting it in front brought on another hæmorrhage, and that hæmorrhage brought on delirium, and the delirium exhaustion; and so through the lack of a piece of string in the right place the man died."

The danger, however, which is so much dreaded in posterior plugging of the nares is the tendency to otitis media.

Many examples of this complication have been recorded; Gellé * gives two cases; in the first there was bilateral otitis as the result of plugging, and in the second there was bilateral hæmorrhagic otitis, suppuration of the right ear, and inflammation of the lung. I have myself seen death result from otitis secondary to plugging, giving rise to pyæmia.

Verneuil † mentions two cases in which septicæmia followed the prolonged retention of the tampon in the nose, and Ingals ‡ has known inflammation of the mastoid cells produced by posterior plugging.

The best instrument for carrying out the posterior tamponade is Bellocq's canula. The canula, which contains a watch-spring fixed to a stylet, is passed into the nostril. By turning a screw the watch-spring runs down the canula and protrudes into the mouth. The piece of string, which is tied to the extremity of the spring, can then be seized and attached to a pledget of lint of sufficient size to occlude the posterior nares. Care must of course be taken to have a second string fastened to the pledget, and coming out through the mouth, by means of which, when the time comes, the plug may be pulled back into the mouth and thus removed. It is a convenient plan to tie together the ends of the strings coming through the mouth and nostril respectively. After the posterior plug has been

* Centralblatt für Laryngologie, vol. iv., p. 7.

† Ibid., p. 205.

‡ Journ. of Laryngology, vol. i., p. 339.

fixed, the nostril should be plugged anteriorly as described at page 14. Before plugging, iodoform may be insufflated up the nostril, or the plug may be impregnated with this or some other antiseptic. It is not advisable to leave the plug in the nostril more than forty-eight hours. If any difficulty is experienced in withdrawing it, the best plan is to irrigate the nostril with a saline antiseptic solution such as borax, common salt, of each seven grains, and glycerine of carbolic acid, forty minims to the ounce of warm water. After the plug is removed iodoform should be insufflated. In the absence of Bellocq's canula, an ordinary gum elastic cathether will be a ready substitute for passing the string through the nostril, or a piece of silver wire, doubled so as to form a loop, sixteen inches long, may be used.* Instead of this arrangement, St. Ange's rhinobyon can be employed. This consists of a tube opening into a small india-rubber bag. The bag is passed through the nose backwards by means of a sound; when it is in position it is inflated with a small syringe and the tube is closed by a clip.

To supersede the necessity of plugging, either anteriorly or posteriorly, various plans of treatment have been adopted, among which the following may be mentioned.

Ingals† advises that the nose should be syringed out with cold water, and that then a powder containing a small amount of cocaine should be insufflated, and this should be followed at once by powdered alum. After the powder has been applied the nostrils should be compressed or plugged. Some authorities recommend that the nose should be irrigated with ice-cold water.‡ This plan is said to have been very successful in some cases, but I do not advise it, as the stream of water tends to wash away the clots as they are formed.

Hot water, which has been so largely employed in the treatment of hæmorrhage from other organs, notably the uterus, has also been used with success in cases of epistaxis. Alvin§ of Mont Dore records a severe case of bleeding from the right nostril. The blood trickled through the plugs and forced its way through

* Centralblatt für Laryngologie, vol. iv., p. 44.
† Journ. of Laryngology, vol. i., p. 339.
‡ Archives of Laryngology, vol. i., p. 294.
§ Brit. Med. Journ., 1887, vol. ii., p. 1355.

the puncta lachrymalia. The nose was swollen owing to the collection of blood in the nasal fossæ. On the dressing being removed blood flowed abundantly. Irrigation was performed with water at 65° to 70° C. (149° to 158° F.). In two or three minutes the bleeding was checked. The operation was not painful, notwithstanding the high temperature of the water; it was repeated twice during the evening, after which the hæmorrhage ceased.

Most of the astringents have been tried at one time or another in the treatment of epistaxis. If they are sprayed or syringed up the nostril, they have the disadvantage of washing the clot away. Hazeline and its pharmacopœial representative, the tincture of hamamelis, have obtained considerable repute as hæmostatics. A patient of mine suffering from exophthalmic goitre, who has had violent attacks of nose-bleeding, tells me that hazeline answered better in her case than anything else. About eighteen months ago I applied the galvano-cautery to the "site of predilection" on the right side of the septum, and the hæmorrhage, which was previously very profuse, entirely ceased, and there has been no recurrence.

Vinegar has long been recognised as a local astringent, and indeed it often proves very useful.

Lemon juice acts in the same way, and Dr. Genuil* claims to have succeeded in checking epistaxis by injecting it after every other kind of hæmostatic had failed. After washing the nostril with fresh water by means of a glass urethral syringe, he injects as much freshly-squeezed lemon juice as the syringe will hold.

A case of epistaxis is recorded† in which, after the patient, a girl ten years of age, had bled for seven days, and had lost a very large amount of blood, the hæmorrhage ceased when tannin was blown in.

Various methods have been employed to retain the blood in the extremities, as for instance the application of a tourniquet on the thigh;‡ fastening a ligature round the thighs§ close to the body, and if necessary also round each arm, so as to check the venous circulation, but not the arterial, &c. By these methods

* British Medical Journal, 1888, vol. ii., p. 1412.
† Centralblatt für Laryngologie, vol. ii., p. 97.
‡ Ibid., vol. i., p. 10.
§ Ibid., vol. iv., p. 206.

the tension of the blood-vessels is diminished and the bleeding is generally speedily checked.

In speaking of the etiology of epistaxis I pointed out the importance of the liver as a factor in the coming on of hæmorrhage from the nose. Galen directed attention to the treatment of certain forms of epistaxis by the application of blisters or cupping glasses to the right hypochondrium. Of late years Verneuil* and Harkin have been the great exponents of this doctrine. The former is of opinion that the revulsion obtained from placing a large blister on the right hypochondrium is the best means of curing certain forms of epistaxis, not responding to the usual treatment. The mode of action of this remedy Verneuil is unable to explain. Harkin † believes that the speedy cure of epistaxis is to be effected by the administration of chlorate of potassium and iron; by a combination of these hæmostatic remedies and counter-irritation, and by counter-irritation alone. The counter-irritation is to be carried out by the application of a large blister over the hepatic region.

Fischer ‡ reports a case of epistaxis occurring in a patient suffering from typhoid fever, in which, after the failure of all kinds of treatment, local and general, energetic counter-irritation over the liver by means of a mixture of turpentine and lard followed by hot poultices effected a cure in three hours.

Echevarria§ records the case of a man, 62 years old, who for 13 years had experienced several severe attacks of epistaxis, which had led him to the verge of death. His physicians had declared that he was suffering from hæmophilia. Echevarria, being called in to control the last hæmorrhage, plugged the nares anteriorly and posteriorly without success. On applying a blister over the hepatic region, the flow of blood was arrested. There was no hepatic lesion.

These and the numerous cases brought forward by Harkin are sufficient to establish the fact, that in certain cases counter-irritation to the hepatic region may succeed in arresting an obstinate nasal hæmorrhage. I cannot speak from any personal experience in this method of treatment, but the evidence I have

* Journal of Laryngology, vol. i., p. 231.
† Nature and Treatment of Epistaxis.
‡ Centralblatt für Laryngologie, vol. iv. p. 438.
§ Journal of Laryngology, vol. i., p.

collected on the subject has convinced me that it should be tried in suitable cases.

A rapid cure of uncontrollable epistaxis in a case of syphilitic hepatitis* has followed upon the administration of full doses of iodide of potassium, hence the importance of thoroughly investigating the patient from all points of view. This caution also holds good, as I have already pointed out, in regard to the examination of the urine. Gaucher † mentions the case of a man suffering from nephritis accompanied with repeated epistaxis. When the patient was put on a milk diet the epistaxis disappeared, after the ineffectual application of blisters to the liver.

After the hæmorrhage has ceased, either spontaneously or by treatment, it is advisable, when there has been a large loss of blood, or the patient is debilitated, to adopt measures to prevent its recurrence. The combination of sulphate of iron, sulphuric acid, and drachm doses of sulphate of magnesium, generally answers well, or the same mixture may be given in combination with ergot or digitalis. Ergot may also be administered hypodermically. I have seen good results from tincture of hamamelis in twenty-minim doses. Oil of turpentine in fifteen-minim doses has been highly recommended.

In the intervals between the attacks treatment should be directed against the underlying cause. For instance, the local condition should be carefully seen to, and any erosion or ulceration of the mucous membrane treated. It is most important that no crusts should be allowed to form in the nose, on account of the tendency to bleeding which their separation entails. To prevent this, the nostril from which the bleeding proceeds should be filled two or three times daily with vaseline, or some simple ointment, such as the boric acid ointment, or benzoated lard, containing one in forty of carbolic acid.

Portal congestion should be treated by the administration of saline aperients and a suitable diet. If, as is often the case, the patient is anæmic from loss of blood, it will be necessary to give iron in some form or another; the addition of arsenic will often increase the good effect of the iron. Should the iron cause headache, or otherwise disagree with the patient, it will be

* Centralblatt für Laryngologie, vol. vii., p. 47.

† Journal of Laryngology, vol. ii., p. 375.

better to give liquor ammonii acetatis, or some other saline for a few days, and then return to the iron.

Finally, an objection may be raised that it is not desirable to cure an habitual epistaxis. Chiari says distinctly that he has seen no drawback from the cure of the condition. I cannot go quite as far as this, but if the precautions to which I have already alluded are taken, the hæmorrhage from the nose may be arrested without fear of any injurious effects. This is especially true in the case of the young and middle-aged; in old age a little more caution must be exercised.

ON THE NATURE OF LUPUS VULGARIS FROM A CLINICAL STANDPOINT.

By Dr. T. COLCOTT FOX.

I had occasion lately, in connection with a discussion on the nature of lupus vulgaris, to collect all the cases of this disease which have been under my care amongst hospital patients, and I propose on the present occasion to bring this collection of cases up to date, and to deduce such conclusions from their study as seem warrantable. An apology is needed for adding another contribution of the character of the following paper, because the clinical aspect of the problem has been dealt with long ago in France and elsewhere, and again by representatives of large dermatological cliniques (Block, Sachs, Bender, Raudnitz, Pontoppidan, Renouard, Dubois-Havenith, &c.) since our ideas were revolutionised by Koch's discovery of the bacillus tuberculosis, and by modern experimental and histological investigations. The clinical inquiry, interesting though it be, is full of pitfalls for the unwary, does not lead to conclusions of precision, and needs that histological and experimental confirmation which has been forthcoming in such abundance of late years, and which has satisfied all but a few that lupus vulgaris is simply a phase of tuberculosis of the skin. And again my experience is so limited in comparison with that of many others on the Continent. My excuse must be that I have carefully observed my small collection of cases, that but few statistics on the subject have been compiled in the United Kingdom, and that therefore mine may be of some value perhaps for comparison with those collected in other countries.

This paper will be, then, a purely clinical record, and will deal with my own material almost exclusively. I shall not go

over well trodden ground and recite again the complete evidence by which the tuberculous nature of lupus is established.

I will point out also that I have excluded from my series all cases that might be regarded by some as "Scrofuloderma," and have considered only well-marked cases of what every one understands by the term "lupus vulgaris." If one collates the various definitions and descriptions of scrofuloderma to be found in authoritative text-books, one is struck by the great diversity in the accounts given. As a matter of fact the phase of disease commonly denominated scrofuloderma does vary a good deal in its characters, and a similar remark applies also to lupus vulgaris, and to conditions described as true tuberculosis of the skin. Indeed, legitimate use may be made of this variation to point out how these several conditions shade off in one another, just as there are diverse manifestations of evolution in "white swelling" of the joints. The manifestations of tuberculosis in the skin are as numerous and as varied as those of syphilis. However, I give the following as types of "scrofuloderma" which I have excluded from my series of lupus vulgaris.

Louisa A—, æt. 5. On the right cheek in front of the ear is a large scar of 3 years' duration, and in the centre of it is a raised, deep red, circumscribed swelling of soft inflammatory tissue, the size of a large nut.

John H—, æt. 10. On the external malleolus, right shoulder, right forearm, right face, and right popliteal space are isolated, violaceous, raised inflammatory swellings, from a shilling to half-a-crown in size, which are crusted over.

George P—, æt. 3, suffered from scrofulous gummata 18 months ago; one of these gummata was dissected out from the outside of the knee-joint one year ago, and now a diffuse red infiltration appears in one end of the scar. An exactly similar condition exists on the left flank and outer side of the calf. There are symmetrical, diffuse, violaceous, raised infiltrations on the lower end and outside of each arm and an enlarged epitrochlear gland at the left elbow. I call attention specially to this case, as I shall later on describe typical lupus vulgaris arising under similar conditions.

Annie R—, æt. 15. The enlarged left leg is covered with large patches spreading serpiginously and leaving scars, wonderfully like a gummatous syphilide. The spreading borders are broad,

raised, violaceous, and the inflammatory infiltration is soft. The history shows that all arose from scrofulous gummata.

Minnie V—, æt. 4, came to me with two scrofulous gummata on the ham, one suppurating. Both under my observation involved the skin and left an excavated, granulating ulcer, with but little tendency to spread.

Ann H—, æt. 39, has large, raised, soft, violaceous nodules in front of the right ear on the border of a scar. At 34 years of age she had suppurating glands on both sides of the neck. In childhood she had scrofulous gummata in a not infrequent site over both malar bones and an abscess (? glandular) in front of the right ear.

Benjamin G—, æt. 5, has the edge of a scar on the right neck infiltrated with scrofuloderma. The scar was presumably from a suppurating gland.

Eliza S—, æt. 32, has scars of old suppurating glands round the neck, and a crescent of soft, exfoliating, large nodules on the cheek at the border of a scar, presumably caused by a suppurating gland.

John W—, æt. 43, has a diffuse infiltration, spreading serpiginously from the site of old suppurating glands behind the left ear.

Mary N—, æt. 45, suffering from advanced phthisis; has suppurating glands, with boggy infiltration and ulceration in the right supraclavicular region and under the jaw.

James G—, æt. 82, has on the back of his right wrist and lower third of the forearm a ringed patch nearly the size of his palm. The centre is healed but the border is broad, raised, violaceous, papillated, and somewhat encrusted. Duration, 2—3 months.

I have recited these cases to illustrate the phase of disease often described as "scrofuloderma." I regard it as a somewhat ill-defined clinical term applied to an inflammatory infiltration of the skin, which generally, and perhaps always, is secondary to glandular disease, or so-called scrofulous gummata, or fistulous tracts in connection with bone or joint disease. The inflammatory growth, whether occurring in a nodular form or as a more diffuse infiltration, lacks the peculiar semi-translucent aspect of lupus vulgaris, and is generally indolent, more or less violaceous in colour, painless, soft and boggy, and with a strong

tendency to suppurate or die *en masse*. The diffuse character of the infiltration is very usual, and when nodules exist they are apt to be large, like those of late syphilis. I meet with elaborate descriptions of scrofulous ulcers, but there is no doubt they may vary widely in character. Lastly, the infiltration may show little tendency to spread or may advance serpiginously. I will say further on this subject that if it is difficult to diagnose between some phases of tertiary syphilis and lupus vulgaris and scrofuloderma, it may be still more difficult, if not impossible, to say whether a given case should be characterised as lupus vulgaris or scrofuloderma. It is acknowledged by those who adhere to the old group "scrofuloderma" that lupus vulgaris may co-exist with it. I refer on this point to case 65 to be presently recited.

I have divided the series of lupus cases into two sets. The one drawn from cases seen at the Westminster Hospital is available for comparison with those met with in other skin cliniques. The other comprises cases under my care at a Children's Hospital.

CASES OF LUPUS VULGARIS SEEN AT WESTMINSTER HOSPITAL.

1. Sarah R—, æt. 36; right cheek; began at 3 years of age; father died young, but cause not ascertained.

2. Marianna N—, æt. 27; cheek in front of left ear; began at age 13; brother and mother died of phthisis; had suppurating glands in neck in childhood.

3. James G—, æt. 17, end of nose and upper lip; began at age 5.

4. Ellen T—, æt. 19; nose, upper lip, neighbouring cheeks, upper gums, neck affected; began at age 14 on right side of nose; four children reared out of 17 in family.

5. Charlotte H—, æt. 19; multiple areas evolved successively on point of nose, cheek, upper lip, right temple, forehead, and breast; said to have started at age 13; had suppurating glands in neck in girlhood.

6. John McC—, æt. 23; nose much destroyed; began in childhood.

7. Caroline C—, æt. 62; the whole of the face, also neck, knee, and toe; glands enlarged round neck since age of

36 years, one suppurated; finger removed for strumous disease of bone; father, and probably other members of his family, died of phthisis; date of origin uncertain.

8. Ada M—, æt. 14½; end of nose, destroyed ala; began at 9 years of age; scar in neck from a suppurating gland; mother's paternal uncle had hip disease.

9. Annie L—, æt. 4½; right cheek; began at 3½ years; maternal grandfather died of phthisis, aged 36, also paternal grandmother.

10. Jane P—, æt. 10; end of nose; probably several years' duration.

11. Kate H—, æt. 18; right cheek; began at 2 years of age; had a suppurating gland in the right neck at one time; father suffered from chronic asthma, and his cousin died of phthisis.

12. Mrs. J—, æt. 31; popliteal space; began at age 14; an uncle died of phthisis, aged 34.

13. Elizabeth S—, æt. 48; face and neck; began at age 31.

14. Fred. B—, æt. 15; left cheek; began at 8 years.

15. Martha P—, æt. 28; bend of left elbow, front of right knee; behind right ear; first patch at 8 years of age; lost two brothers and a sister from phthisis, father died of diabetes, and there is phthisis on his side of the family.

16. Leonard H—, æt. 4½; right cheek in the earliest stage; no family history of phthisis; under me at 11 months of age with scrofulous gumma of the right cheek, the back, right foot, and at 19 months of the right wrist.

17. Alfred L—, æt. 22; right cheek; began aged 5; brother had abscesses round neck, and another brother has phthisis.

18. Ethel H—, æt. 7; two patches left cheek, one speck right cheek; began at age 5; much enlarged glands all round neck and under chin, and above left elbow; father died of phthisis, aged 35, maternal grandfather died also of phthisis, and many of his family.

19. Ellen H—, æt. 27; right face; said to have began in a suppurating gland in front of leg at age 14 or 15.

20. Rose F—, æt. 7; hypertrophic lupus of right buttock; began at age 4.

21. Fanny S—, æt. 8; left cheek and upper lip and right thigh; began at age 4 on face.

22. Alfred H—, æt. 33; eyebrow and hand.

23. William B—, æt. 19; had scrofulous gummata of the leg at 3—4 years old, leaving deep scars, bone disease of foot, vegetating lupus of foot, large annulate typical areas of lupus of the thigh, obliteration of inguinal and femoral glands by suppuration and finally hypertrophic enlargement of the leg; face extensively involved five years ago, and also the neck, where are scars of suppurating glands, very phthisical looking; maternal grandfather died of phthisis, mother said to have weak chest; some of patient's brothers had enlarged glands, and one bone disease.

24. Georgina I—, æt. 32; right hand; began at age 7.

25. Annie D—, æt. 16½; right face, spreading beneath chin; began as a child; father's mother and sister had suppurating glands and (?) lupus.

26. Gertrude W—, æt. 10; left cheek; duration 15 months; old scar of gland, abscess neck, hip disease at 15 months; phthisis on mother's side.

27. Margaret S—, æt. 64; back of left hand (warty); began at age 60, whilst nursing her husband and her daughter dying of consumption.

28. Ellen H—, æt. 24; nose inside and out; began inside nostril at 10 years of age; septum perforated, left ala gone.

29. Daisy C—, æt. 3$\frac{11}{12}$ years; multiple patches across the face, began at 3 months old; ear two years later; paternal grandfather died of phthisis, aged 32, also father's brother.

30. William McK—, æt. 6; neck; in the scar of a suppurating gland are several perfectly typical, brownish-red, semi-translucent, jelly-like pin-head nodules.

31. Annie C—, æt. 19; right side of nose, root of left toe; began at 7 years or earlier; little toe removed for bone disease as a child, and at age 19 a typical lupus nodule developed on the stump under my observation; parents died aged 46 and 31; sister delicate.

32. Elizabeth D—, æt. 60; began right wing of nose at age 53, and spread over greater part of face and to mouth.

33. George S—, æt. 17; under chin and secondary nodule on upper lip; glands in neck enlarged lately; attention attracted to disease at age 14; father died of phthisis, aged 35, when son 9 years old.

34. George D—, æt. 5; back of left forearm, also a scrofulous gumma on right arm; began soon after birth.

35. Rachel P—, æt. 36; nose inside and out; began at age 34, just under the nose.

36. Harold F—, æt. 15; right popliteal space at 9 years old, left axilla at 10 years; psoriasiform patches.

37. William P—, æt. 22¾; left cheek and neck (one patch), forehead; glands removed both sides of the neck at 6 months old; the gland enlargement and the lupus patches commenced together at 3 months old; first rate family history.

38. Charlotte H—, æt. 2$\frac{4}{12}$; right cheek and later right forearm; began at 4 months old; possibly inoculated from aunt, who was far advanced in consumption whilst attending on child's mother during confinement.

39. Bessie R—, æt. 24; began on chin at 18 years of age, and then border of nostril; suppurating gland in left neck formed two years after appearance of lupus, and was removed.

40. Mary C—, æt. 23; case parallel to that of William B—; began in abscess of ankle at 11 years of age, leading to implication of whole leg and thigh with lupus and elephantiasic enlargement; whole leg disseminated with excoriated lupus nodules; scars of subcutaneous abscesses; circinate lupus patches on thigh; abscesses around but outside knee-joint.

41. Edward George O—, æt. 13; extensive lupus exfoliativus of face, typical patches of lupus on left leg and arm; glands enlarged in left groin; began as a tuberculous abscess in foot after measles at age 6; diseased bone removed, but foot bones still diseased, followed by abscesses on left arm and thigh and face, all having a spreading lupus; mother's father and brother died of phthisis.

42. Arthur N—, æt. 8; left parotid region; typical lupus nodules beginning at 4 years old in suppurating gland in front of left ear; maternal grandfather's relations suffered a good deal from consumption.

43. Charlotte C—, æt. 33; continuous patch involving left eyebrow, temple, eyelids, and adjoining nose and cheek, also big toe, and lately the shoulder; began at 4 years old; glandular abscesses each side of neck prior to lupus; a brother was very delicate, and said by a doctor to be consumptive.

44. Mrs. H—, æt. 28; enlarged gland in centre of a scar

occupying all the jaw region; on inner edge of scar are two patches of lupus.

45. George H—, æt. 24; nose inside and out, and right cheek extensively and upper lip; began inside the nostril at age of 18 (?).

46. Bertha M—, æt. 3; psoriasiform patch back of left elbow-joint; began at 4 years old.

47. Lucy Olive W—, æt. 20; crusted vegetative mass on the end of the nose with satellites around; began at 15 years or earlier, certainly inside nostril; all septum gone; scrofulous gumma on calf a few years ago; father's brother died of phthisis and (?) father.

48. Lilly J—, æt. 24; the most extensive case of lupus I have ever had under my care, involving the whole face, neck, upper half of trunk, arms, buttocks, thighs, and toe; began at 4 years of age, it is said from a suppurating neck gland after measles; cartilages of nose and ear destroyed; mother's father and brother died of phthisis.

49. Henry M—, æt. 7½; outer corner of right eyebrow and later right cheek; began at 7 years; phthisis on mother's side (mother's sisters); child always delicate.

50. George P—, æt. 16; over jaw; 14 years' duration; scar of old abscess as a baby over malar bone under left eye; mother has some chest complaint.

51. Annie H—, æt. 65; nose; probably commenced at 15—16 years of age, but present attack is probably a recent recrudescence in the scar.

52. George W—, æt. 21; verrucose lupus of back of hand; at 8 years old had abscesses about left ankle open for five years, and leaving deep scars; then had abscess (? suppurating gland) angle of left jaw. At 11 years cut his hand, and a sore and then a wart formed, which has gradually spread; father died of "consumption of bowels," aged 40, when his son was 10 years old.

53. Frances M—, æt. 17; lupus of hand at age 12, and now has diseased metacarpal thumb-bone; lupus nose at age 13 (right ala); big abscess ankle at age 8, and also others in childhood, the last on heel at age 13; father died of phthisis, aged 45; her brother refused admission to an institution on account of weak chest; she looks thin and white.

54. Mrs. C—, æt. 25; remembers lupus of her nose at age

10, now right nostril occluded, and inside left nostril, also across face in butterfly pattern.

55. Alice M—, æt. 32; psoriasiform patch left buttock; duration 9 years.

56. Amy M—, æt. 16 months; lupus nodule in vaccination scar, cold abscesses of frontal bone leading to perforation of bone, enlarged epitrochlear glands, tuberculous dactylitis of fingers, enlargement about elbow and knee-joints, lupus in scars after excision of the abscesses, evolution of lichen scrofulosorum and an acneiform eruption which spread as lupus nodules on thighs. Death from tuberculous meningitis, tuberculous mass in lung.

57. William H—, æt. 61; came as a suppurating lump under the skin of left neck at age 58, spread serpiginously since.

58. Nelly H—, æt. 6; at 10 months had an abscess in the site of left epitrochlear gland, and just afterwards one in the left groin, followed by abscesses in the neck from which typical lupus nodules have spread over face and beneath chin; patch of lupus round right eye, probably from inoculation into a burn (2 years' duration); no history of tuberculosis in any near relation.

59. Eliza H—, æt. 40; lupus of cheek for 3 years, in and outside left nostril (?) 18 months; scar of suppurated gland right neck 18 months ago; no family history of tuberculosis.

60. Sarah L—, æt. 31; began at age 14; left cheek; paternal aunt had phthisis.

61. Caroline W—, æt. 7; right buttock; began at age 3.

62. William P—, æt. 8¾; right cheek; began at age 4; sister phthisis, paternal grandmother phthisis, mother's parents died young.

63. Matilda T—, æt. 80; multiple patches over face and ears; date of origin not noted.

64. Fanny H—, æt. 24; just below elbow; began at 5 years old; two maternal aunts died of phthisis.

65. Mrs. W—, æt. 53; lupus of the end of the nose and nostrils; about 8 years' duration; a brother is said to have had exactly the same kind of disease; father and mother died aged 50, the former from consumption. Later the patient had a gland suppurate under the chin, leaving a crusted patch of scrofuloderma.

66. Emily R—, æt. 38; extensive typical lupus of forearm, in the centre of which is a deep depressed scar formed by an

abscess, from which the lupus apparently spread; duration from age 30; had suppurating glands right neck at 15—17 years old, and several whitlows; her last child, aged 1 year, has scrofulous gummata; her father died of phthisis, and one or two of her younger brothers and sisters.

67. W. R—, æt. 35; right cheek; began at age 9—10; sister died of phthisis, which has affected the mother's side.

68. Mrs. F—, æt. 40; nose and cheek; many years' duration; scars of old suppurating glands on neck; father's brother said to have had lupus on the arm, and mother's brother diseased bone of the hand and some skin affection in connection with it.

69. E—, æt. 40; lupus nodules over the end of the nose; several years' duration.

CASES APPLYING AT CHILDREN'S HOSPITAL.

70. Albert P—, æt. 10¾; multiple patches on right arm, right thigh, left angle of mouth, right neck, right shoulder, finger, all evolving about the same time, *i.e.*, at 6—8 months of age; "all mother's side went off in consumption."

71. Alfred P—, æt. 10; warty and inflamed patch back of left hand; began at 5½ years; sister died of phthisis.

72. Alfred N—, æt. 2½; typical psoriasiform patch of lupus on the left buttock following a scrofulous gumma at 4 months old; marks of other abscesses on other buttock and thigh; mother and maternal grandmother and two maternal aunts and an uncle died of phthisis.

73. Charlotte S—, æt. 7½; typical lupus on cheek, and also in site of scar of suppurating gland on neck; duration, one year; multiple suppurating glands in neck; sister died of phthisis, and only two children of family living out of twelve; maternal father and mother died of phthisis.

74. Edith E—, æt. 4½; cheek, popliteal space, and around one vaccination scar; began at 18 months; vaccinated at 3 months.

75. Blanche S—, æt. 11; on cheek; began at 6 years; mother's brother and father died of phthisis.

76. Edith L—, æt. 2; typical psoriasiform lupus of buttock; began as a baby.

77. Fred W—, æt. 9; hypertrophic lupus of buttock; began

before one year old; asthma and bronchitis both sides of family.

78. Alfred E—, æt. 8½; cheek; date of origin not recorded.

79. Mary O'C—, æt. 2½; began as a "boil" on right cheek at 6 months; lanced and never healed; two of husband's first cousins died of phthisis.

80. Ethel B—, æt. 10; crusted lupus on back of right shoulder; began at 6—7 years; paternal grandmother died of galloping phthisis.

81. Ada B—, æt. 18; nose inside and out, great toe, palate, larynx, &c. The left big toe was inflamed and enlarged like a bad chilblain at age 9, and was removed, but lupus spread at base; subsequently others amputated. At that time the mother called attention to the occluded nostrils, and subsequently typical lupus nodules developed over the outside of the nose, and the septum was quite destroyed. The lupus spread along the palate and into the larynx. Typical tuberculous glands in the neck developed. None of the brothers and sisters strong, but only the youngest, the 6th, has any definite scrofulous manifestation, viz., disease of vertebræ. Maternal grandmother died, aged 48, of phthisis, and child's father also, aged 41; mother delicate.

82. Mary X—, æt. 5; commencing typical lupus, nodule and satellites of tip of right shoulder.

83. Victor G—, æt. 5; enlarged glands in neck, one of which suppurated six months ago; now around this scar are several miliary, brownish-red, semi-translucent (apple-jelly) lupus nodules. The enlarged glands were removed, and proved to be tuberculous.

84. Lilly R—, æt. 2$\frac{3}{12}$; early typical lupus of the right cheek; duration quite 7 months; mother delicate, and four children in family dead out of nine, but no positive evidence of tuberculosis.

85. Helena S—, æt. 13; nose at entrance to nostril; began at age 10; had pleuro-pneumonia at 10½ years, and again at 11½; enlarged glands in neck which never suppurated; abscess in back at 12 years old; father had hæmoptysis, and his family very phthisical.

86. Ellen J—, æt. 15; began in cheek at 4 years old, and spread over the whole face, nose, and lips; deep puckered scars

of old scrofulous gummata under the eyes, enlarged glands neck; mother died of phthisis, and patient's sister very fragile. This case was very virulent, returning with great rapidity after operation, and always assuming a massive and fungating form, making the face quite elephantiasic.

87. Rose B—, æt. 7; began inside the nostril at age 6, and destroyed the septum; typical lupus nodules on outside; one sister died with galloping consumption.

88. Maude M—, æt. 13 $\frac{9}{12}$; nose inside and out began at 9¾ years, and subsequently right cheek; enlarged glands from outset, which have never subsided. Two of father's brothers, the maternal grandmother and her sister, died of phthisis. This case was the subject of a vaccination prosecution. The history I obtained was that at the time of re-vaccination pustules broke out on the nose, which never healed, and from that time the lupus dated.

89. M. H—, æt. 5; began before 2½ years old; about 40 small patches of lupus disseminated over the face, neck, and limbs; very delicate, and the subject of old spinal disease; father died of phthisis, and two of patient's brothers had abscesses. This was a very good example of the nearly simultaneous development of numerous lupus foci.

90. W. B—, æt. 9½; nearly the whole face and the *scalp* are the seats of quite distinct areas of lupus, spreading by a continuous raised margin; patch also on left flank; larynx affected; began on scalp at age 8; big scar on right arm apparently from a scrofulous gumma; glands under jaw enlarged. This boy died suddenly soon after from lupus disease of the larynx.

91. Florence U—, æt. 7; cheek which began at age 5½; a very delicate child; father died of phthisis and four of his children.

92. Fannie U—, æt. 5; sister of Florence U—; lupus of the chin and temple dating from 3 years of age.

93. William D—, æt. 8; both arms, which began together at 6 months old; the left leg at 5 years; father died at 32 of "abscess on the liver."

94. Geo. P—, æt. 5; right forearm; began at age 3; paternal uncle and grandmother died of phthisis.

95. Robert F—, æt. 10; nose; began at 9 or earlier; maternal uncle and others in mother's family died of phthisis.

96. Lilian Y—, æt. 12; right cheek, and related glands in neck much enlarged; began at age 11; no history of phthisis in family.

Most of the forms of lupus vulgaris were illustrated amongst the cases. There is no doubt that the miliary, imbedded, semi-translucent, yellowish-red nodule, so strongly reminding one of the miliary tuberculosis of the lung, is highly characteristic of lupus, and there are but few other lesions, such as colloid milium, which in any way resemble it. The formation of larger nodules by gradual growth or confluence, and the evolution of satellite granules, which are gradually absorbed into the parent lesion, is also highly characteristic of the growth spreading by continuity and contiguity of tissue. As the nodules increase in size this peculiar semi-translucence tends to disappear and the colour deepens, though they may remain with a polished appearance. Such nodules may closely simulate the syphilitic nodule. The size of the nodules and the degree of infiltration of the tissues largely depends on the amount of simple inflammatory tissue which accompanies the specific tissue in different cases. We must be prepared also for the secondary modifications which may result and mask the primitive changes. There may be vascular disturbance and simple infiltration of the tissues causing more or less swelling of the part. There may be proliferative changes causing exfoliation and heaping up of epithelial products, or papillary or warty overgrowth or formation of fibrous tissue as in tuberculosis of the lung. Or again, the atrophy of the involved tissues, or the degenerative processes of caseation, necrosis, or suppuration may lead to wasting, crusting, the formation of granulations, and scarring. It is interesting to observe on a recurrence of the disease after scraping how the primitive apple-jelly-like miliary nodules reappear. Associated with these changes are the various patterns of the patches bought about by the peripheral infective spread as the older portions undergo degenerative and destructive changes. Such secondary changes are not peculiar to lupus vulgaris, but are met with in many of the infective granulomata for instance, and in a non-infective process like bromide of potassium eruption. Nor are the multilations of the nose, ears, and limbs peculiar to lupus. In this way a multitude of various aspects are encountered, which it is not our object on this occasion to describe in detail, as they present themselves in the several regions of the body.

My cases illustrate the general experience that often but a single patch exists, though in some cases there is a tendency to multiplication; yet as Mr. Hutchinson says, they are never symmetrical except by accident. This multiplication probably may occur in one of three ways—by auto-inoculation, by lymphatic channels, but in rare instances by the medium of the blood current. I shall return to this point again. The degree of infectivity varies widely. In some cases, especially on the cheek and on the buttock, patches will remain practically quiescent; in others the spread is comparatively rapid, and a considerable area around the primary patch is studded with miliary nodules, reminding one strongly of tuberculosis of the lung spreading perhaps from a caseating gland. After a scraping operation also this infectivity is sometimes witnessed in the rapid recurrence of the nodules.

With regard to the sites affected, my experience is also the usual one. Exposed regions of the body are largely involved. This is open to the explanation that such parts are specially liable to inoculation, or that they are predisposed by reason of the vascular disturbances to which the hands and face are subject. In my 69 Westminster cases I have noted that the face was the site of first onset in 43 cases, or about 62 per cent., thus distributed—the eyebrow 1, the right cheek 10, the left cheek 8, the end of the nose 17, the chin 2, the face again is stated 5 times, and in addition there was a case noted as beginning together on face and neck, and another eyebrow and hand. The neck was noted 5 times. It attacked the lower extremity first 8 times, and the upper 10 times in the following regions—popliteal space 2, bend of elbow 1, buttock 3, leg 3, back of hand 4, left forearm 2, arm 3. The Children's Hospital series of 27 give the following sites of onset—face 11 (cheek 7, nose 4), neck 1, upper extremity 3, lower extremity 3, right shoulder 2, scalp 1, undetermined 4, acute eruptive cases 2. The scalp, as in leprosy, is rarely attacked by lupus. The case here recorded was an unquestionable case affecting the scalp, face, and larynx. It had this peculiarity also, that the extending border of the patches was a continuous one, and not obviously nodulated with outlying satellites.

In the Westminster cases there were 47 females and 22 males; in the Children's Hospital series there were 17 females and 10 males.

As to the age of onset my conclusions are that lupus begins far more commonly in early childhood than some observers state. In the Westminster series I find that 33 or nearly 48 per cent. began in the first 10 years of life, and of these 18 commenced in the first 5 years of life, and five of them in the first year. In the fifth year was a common period. Nine began from the 10th to the 15th year, 3 from the 15th to the 20th year, 1 from 20 to 30, 5 from 30 to 40, 1 from 40 to 50, 2 from 50 to 60, 1 from 60 to 70, eight in addition were noted as commencing in childhood, 1 under 20, and in 5 the date was uncertain. Allowance must be made for haziness of memory in some of the adult patients, but as in some measure confirming these results I noted in my Children's Hospital series that 12 began in the first 5 years of life, and 13 in the second 5 years, 1 from 10 to 11, and 1 from 11 to 12. Five of them began in the first year. Had I the necessary material it would be interesting to compare these results with the incidence of various forms of tuberculosis affecting glands, bones, joints, and subcutaneous tissue.

I now come to the association of lupus with other forms of "scrofula." In the Westminster series in 26 cases out of the 69, or about 37½ per cent., there was evidence of the existence of glandular disease occurring either before the evolution of the lupus, or about the same time, or subsequently. In the Children's Hospital series about 26 per cent. afforded similar evidence. That lupus may exist for years without implication of the related glands is true, but on the other hand the glands may certainly become implicated, and I believe not infrequently. The clinical evidence does not permit us to say that this enlargement may not be a simple irritative one, but Leloir has afforded proof that such glandular mischief may at any rate sometimes be tuberculous. I would remark on the frequency with which such implicated glands suppurate, and I believe this process is one of the means by which the system is prevented from a more general infection. My cases afford no evidence of a general infection causing phthisis, but I have twice noted a gradual infection of the lower extremity from the foot, resulting in abscesses up the leg and thigh, leaving lupus areas, abscesses just above and around the knee-joint, and suppuration and obliteration of the femoral and inguinal glands.

Eleven of the Westminster cases suffered at some time from "scrofulous gummata," or nearly 16 per cent.; in the Children's series 15 per cent. In the Westminster cases there was evidence of past or present bone or joint disease in 8·7 per cent., and rather less in the Children's Hospital series.

There is no doubt truth in Mr. Hutchinson's remarks about the value of family histories of phthisis. The percentage in which such a history is forthcoming does depend no doubt largely on the closeness and persistence of the inquiry. We must bear in mind that Dr. Joseph Coats has estimated "that of all persons born into the world, about one-half are fated before they die to be affected with tuberculosis in one or other of its forms." Still I attach a certain value to the comparison of results obtained by any one observer amongst different classes of subjects. My Westminster cases afforded a family history of phthisis, more or less close, in 43 per cent., and the Children's Hospital series in 63 per cent. I have collated the family history of 750 adults, elicited by me in the course of a careful examination for life insurance, and obtained a percentage of 18·5.

The study of the sources of origin of lupus is a field in which much careful observation remains to be made. I have already explained that I take particular pains to exclude any cases that might not be considered true examples of lupus vulgaris, and I will now call attention to the cases numbered 19, 30, 42, 48, 58, 73, and 83, in all of which I believe true lupus originated from suppurating glands. I had a drawing executed of a type case, in which perfect miliary, apple-jelly nodules originated from such a source. Numbers 31 and 81 are examples of the origin from diseased bone, and 23, 40, 41, 56, 57, 66, and 72 from scrofulous gummata. I do not dispute that the scrofuloderma phase is the more frequent from such sources of infection.

How do the bulk of the cases arise? Are they the result of inoculation from external sources in persons more or less predisposed? Are they to be regarded as a "vice of nutrition," and direct outcome of a scrofulous diathesis? Or may the skin be affected by means of the blood current from a pre-existing source of contamination? Evidence is fast accumulating that lupus may be inoculated from external sources, either into pre-

existing wounds or otherwise, under favourable conditions. The frequency with which the primary patch occurs on exposed regions, and about the nostrils, suggests this origin, as does the peculiar mode of multiplication of the patches. In the many cases of inoculated tuberculosis on record the true lupus type of lesion does not appear to be common, but there is the interesting case mentioned by Jadassohn in which lupus was one of the secondary lesions on the arm. I have been struck by the circumstance in recent years that careful inquiry sometimes discloses the fact that some member of the family was suffering from phthisis in the house at the time of the origin of lupus. I may refer to cases 27 and 38 as examples. That tuberculosis may be congenital is now pretty well proved, and the tender age at which some of my cases of lupus originated suggests the possibility of a congenital origin. Lastly I will refer very briefly to the well-known cases in children in which a widely disseminated and a veritable eruption of lupus nodules occurs almost or quite simultaneously, as in cases 90 and 56. I have evidence to offer which I believe will show that such eruptive lesions are brought about through the agency of the blood current, and that probably single nodules may arise in a similar manner. This particular point however I am about to deal with in detail in a further communication.

Clinical evidence therefore, I believe, goes to show that lupus vulgaris is a phase of tuberculosis; and the proof is satisfactorily completed by the histological and experimental evidence. Lupus vulgaris may co-exist with the various lesions characteristic of tuberculosis inoculation on the fingers, and is frequently associated with lesions believed to be tuberculosis in joints, bones, subcutaneous connective tissue, and glands. A marked predisposition to tuberculosis is shown by the frequency of a family history of tuberculosis, and by the presence of various tuberculous lesions. The age at which it commences has some significance. It may originate by local infection from tuberculous disease of bones, joints, connective tissue and glands, and in this respect its essential identity with "scrofuloderma" is proved. Moreover, the clinical phases known as scrofuloderma and lupus vulgaris pass insensibly into one another, and types of each may co-exist in the same patient. The infectivity of lupus is apparent in its mode of origin as described above, by its local method of spread

by continuity and contiguity, by the implication of related glands and other tissues at a distance as in its progress up a limb, by the multiplication of patches, by auto-inoculation and by means of the blood current, and lastly, it is believed, by the eventual production of visceral tuberculosis in a certain proportion of cases.

In conclusion, I will add one word on the treatment by scraping. Most of my hospital cases have been so treated, and I am happy to say that the results on the whole have been very satisfactory. Many set little value on scraping, for obvious reasons. A case is admitted, scraped, and sent out as relieved or cured, only to show recurrence in the great majority of cases. The advantages of scraping are its extreme simplicity, the readiness with which the least experienced can use it, the impossibility of doing too much with it, and the thoroughness with which it does all that it can be expected to do. But a most exaggerated view is taken of its capabilities. Besides the bulk of the infiltration which scraping will remove, there are outlying collections of diseased cells stretching away into the tissues. These cannot be removed by scraping, and indeed only by complete destruction of a considerable depth of skin. Consequently it is unreasonable to expect that a scraping will cure a case. After the operation I apply a cream of chloride of zinc in spirit, more or less concentrated according to circumstances. This is to run between the bundles of tissue and kill any infected cells that may be exposed. From this time a long course of watchful treatment is necessary. Directly any miliary apple-jelly nodule makes its appearance, I bore it out with a match dipped in chloride of zinc paste, and by thus carrying on an unremitting warfare, I know that very severe cases can be cured. It is only possible, however, by a thorough acquaintance with the earliest signs of disease and by assiduous attention. To expect that scraping alone will cure any but exceptional cases is unreasonable, and only brings this most useful operation into discredit.

NOTES ON THE ALTHORP MURDER.

By Mr. BOND.

On November 22nd, 1892, I was requested by the Treasury Solicitor to examine some bones which were found mixed with ashes in a warehouse in Dychurch Lane, Northampton.

It will be remembered that on August 7th of that year a man named Jack Chapman, the whip to the Pytchley Hounds, discovered in a ditch at Althorp the lower part of a human body wrapped up in a sack and in a very advanced state of decomposition. The police were communicated with, and the remains were examined by Mr. Churchouse, who gave the following evidence before the magistrate.

This Deponent, William John Franklin Churchouse, on his oath saith:—

"I am a Physician and Surgeon practising at Long Buckby, "in this County. On the 7th of August last, in consequence of "information given to me, I went to a ditch beside the turnpike "road in the Parish of East Haddon. I there saw part of a "human body. I did not then make any close examination, "and it was removed to the Red Lion Inn at East Haddon. I "found the whole of the head and both of the arms missing. It "was the body of a female over 18 years of age; the remains "were in a very advanced state of decomposition, almost eaten "by maggots. I noticed a quantity of lime around the body and "inside it. The legs were 32 inches long; there was a night "shirt or chemise, a pair of drawers, a skirt, also a dress skirt, "and a piece of linen on the body or with the remains; several "human bones were found* close to—two collar bones, two "shoulder blades, several of the vertebræ, 19 ribs, and a piece

* It was supposed that the bones had been disturbed by rats or dogs.

" of rib, and a portion of the right humerus which appeared to
" have been sawn with a fine saw; the legs had stockings on;
" they were in a better state of preservation than the rest* part of
" the body; the legs were doubled back touching the buttock,
" force would have to be used to so double them. I could not
" give an idea of how long the body had been there—a month,
" but from subsequent enquiries, I think it may have been a
" shorter time; I cannot say. The legs could have been doubled
" some time after death, but after rigor mortis it would take
" considerable force.

" W. J. FRANKLIN CHURCHOUSE."

About the same time a woman named Annie Pritchard was missing. She was last seen alive on July 20th near Dychurch Lane, Northampton, in company with a man named Andrew McRae.

The woman was then carrying a young baby, of which she had been recently delivered. Some linen covering the remains having been identified as belonging to Annie Pritchard, and there being also a label on some sacking addressed to McRae, suspicion fell on this man, and he was arrested.

Again on searching the warehouse in Dychurch Lane, where he worked, some calcined fragments of bones were found in the grate, and after having been examined by Mr. Millington, of Northampton, and reported to be human, they were sent up to me for examination.

I reported on them as follows:—

Bones handed to me by Inspector Rogers.—Between 20 and 30 calcined fragments. Among them I recognise the distal end of a middle phalanx of an adult human hand. I also recognise a portion of the shaft of a long bone which has been in my opinion divided by a fine saw. The portion corresponds in general outline and size with a portion of the shaft of an adult humerus. The other fragments I cannot assign a specific position to. There are fragments of long bones and fragments of round bones. Every fragment shown to me may be the calcined remains of a human hand and arm.

Bones produced by Superintendent Alexander, in tin box.—About 10 fragments and one complete bone. The latter is the

* Viz., the upper portion of the body.

terminal phalanx of the finger of an adult human hand, probably the little finger. One of the fragments is no doubt the proximal end of a middle phalanx and another fragment appears to me to be the distal end of a metacarpal bone. The remaining fragments are too broken up and calcined to be definitely recognised. There are several fragments which appear to be portions of small bones.

I was shown, at the same time, a bottle containing melted fat, coagulated, and weighing about 2 drams. It was mixed with hair and floated in the water which the bottle contained.

This, I was informed by the police inspector, had been scraped off the sides of a furnace in the warehouse.

I was called as a witness at the trial on November 15th, and I was expected to assist in elucidating the following medico-legal questions:—

(1) Was the body found in the ditch that of an adult female?

(2) Was there any evidence as to how death took place?

(3) Was the advanced state of decomposition in which the body was found on August 7th consistent with its being the body of Annie Pritchard, who was alive on July 20th?

(4) Were the calcined bones submitted to me for examination human bones, and could they be mistaken for the bones of any animal?

(5) Did the sawn fragment of calcined bone correspond with the sawn humerus found in the ditch?

(6) Were the fat and hairs human, and if so, did they correspond with the hair of Annie Pritchard.

Comments.

With regard to question No. 1, I did not see the body; the only part preserved and shown to me was the upper part of the sawn humerus.

The epiphyses were completely united, the bone was solid and well marked, small in size, and apparently that of a female.

Mr. Churchouse, who examined the other bones, had no hesitation in saying that they belonged to an adult female. He omitted to measure any of the bones of the leg, and therefore

no evidence could be given as to the approximate height of the body.

The only direct evidence that it was the body of Annie Pritchard was the fact that the stockings, chemise, and petticoat found on the remains were sworn to as having belonged to her.

With regard to question No. 2, there was no evidence as to how death took place, nor, in my opinion, was anything found which could throw any light on it.

Question No. 3 opened up a very interesting argument:—

(*a*) Could a body putrefy by liquefaction in so short a time, viz., 18 days?

(*b*) Could the bones have been separated from each other by decomposition in that time?

(*c*) What effect would the maggots have on the decomposition?

(*d*) What would be the effect of the lime on the decomposition? and lastly, would the position of a body in a deep moist ditch arrest or hasten decomposition?

Dr. Churchouse at first had the idea (in his evidence before the coroner) that the body must have been in the ditch two or three months, but on making enquiry, and considering the case, he modified the opinion, and stated that he thought it might have been there about a month. Luckily I was able to give a very recent instance where decomposition by liquefaction had taken place in ten days, during the same month, and under very similar conditions as regards access of air and temperature.

I allude to the case of a woman found dead in a stable at Bermondsey, and covered with straw. The woman was identified by her clothing, and was known to have been alive ten days before, yet the body was almost completely liquefied in parts, whilst the face, mouth, and neck were completely eaten by maggots, therefore I was able to state that the body found in the ditch might have decomposed to the extent it did well within three weeks, and that the position in the close, deep ditch would be favourable to it; also that the devouring of the body by maggots would be likely to take place, and would accelerate putrefaction.

There was no evidence as to the amount of lime around the body, but I gave my opinion that it would have required a very large quantity to have prevented putrefaction. If there had

been a large quantity it would have destroyed the soft parts by absorbing gases and moisture, and no doubt some parts were so destroyed, whilst the other parts not in contact with the lime putrefied, and were devoured by maggots.

What puzzled me most was the separation of the bones from each other; this happened to the upper part of the body, but not to the legs and pelvis.

The only explanation I could give was that the upper part of the body had been boiled in the furnace before being deposited in the ditch, and therefore would fall apart when disturbed.

In the case of Mrs. Thomas, who was murdered by Kate Webster about ten years ago, I remembered that certain parts of the body which had been boiled were easily disjointed through the softening of the ligaments and the peeling off of the cartilages.

I therefore gave it as my opinion that the upper part of the body had been boiled, and as soon as the soft parts had been destroyed the bones would easily separate, even in the short space of 18 days.

With regard to question No. 4, the calcined fragments identified by me were compared with the metacarpal bones and phalanges of a human hand, and although much broken up, the articular surfaces were easily recognised and identified; but the question still remained—could the fragments have belonged to any animal?

The man was a pork butcher, so pig's bones were first suggested.

I boiled down some pig's feet, and it was quite evident at once that none of the bones could have been those of a pig.

I then took the bones to the Natural History Museum, and with the assistance of my friend, Professor Flower, we compared them with the phalanges and metacarpal bones of the anthropoid apes and also with those of other animals. We found that it was not possible for them to belong to any animal except an anthropoid ape of about three or four feet high, therefore I was obliged to say in my evidence that if the bones had been dug up in Central Africa I could not have sworn that they were human, but that here, unless an anthropoid ape's hand had been burnt in the warehouse, the bones must have been those of an adult human hand.

With regard to the sawn humerus, the segment of humerus found amongst the calcined bones corresponded in shape and general outline with the sawn humerus found in the ditch, but it did not correspond exactly in size; the calcined segment was rather smaller than the corresponding part of the humerus, and if the segment had been entire it would have made the shaft of that portion smaller. This was accounted for, no doubt, by the operation of the fire burning out the soft parts and causing shrinking of the bone. I have no doubt but that the two parts were from the same bone. The character of the sawn surface in each was precisely similar. As to the fat, I was not sufficient chemist to give any opinion as to whether it was human or not, and I do not know of any chemical process which would determine it.

I was able to state, however, that the fat was animal, because it contained pieces of fibrous and cellular tissue.

The hairs were carefully examined under an $\frac{1}{8}$th inch object glass. They corresponded in size and in every particular with the well-known character of human hairs. They were light brown in colour, but there was one peculiarity about them. A great many of the hairs were split and broken in the longitudinal direction. Some of the hairs were simply split open and then joined again. This I had never seen before. I could only account for it by suggesting that the hair had been boiled for a considerable period.

When in the witness box I was asked if they could have been the hairs of Annie Pritchard, whose hair was stated to have been dark brown. I answered that I believed the prolonged boiling of dark brown hair would make it lighter in colour.

Deductions.—My opinion is that the condition of putrefaction which existed on August 7th was perfectly consistent with the fact that the body might have been alive on June 20th, but that the separation of the bones would not have occurred in so short a time unless they had been previously boiled.

The bones found in the ashes were no doubt the remains of a burnt adult hand and arm.

The hairs found in the furnace were no doubt human, and the colour was consistent with their having been the hairs of Annie Pritchard.

I think the woman after being murdered must have been

placed head foremost into the copper of the furnace and thoroughly boiled. There was evidence of much smoke and of a horrid smell coming from the warehouse at the time when the woman disappeared. The hands and arms were no doubt burnt in the fire.

No trace of the baby was ever found. It is probably at the bottom of some pond in a bag weighted with stones, and possibly the woman's head also.

The medical evidence, together with the collateral evidence, was considered sufficiently strong and reliable to prove McRae guilty of murdering Annie Pritchard, although there was no direct evidence to prove how the woman was murdered or that she was murdered at all.

This case bears a close resemblance to that of Mrs. Thomas, murdered by Kate Webster, where the body was disposed of by boiling, burning, and burying some parts, while other parts were deposited in the Thames. In neither case was any trace of the head discovered.

ON THE APPLICATION TO MEDICAL USES OF THE ELECTRIC LIGHTING CURRENT.

By Dr. W. A. WILLS.

Now that the supply of electrical current by electric lighting companies has become so general in London, there is little difficulty for most doctors—north of the Thames, at any rate—in obtaining a supply in their house; and it is in view of that supply being utilised for medical purposes that the present remarks may prove of interest.

Major Marindin, acting on behalf of the Board of Trade a few years ago, after the passing of the Electric Lighting Act of 1888, divided up the City of London into various districts. In each of these districts he endeavoured as far as possible to give the electric lighting rights to two companies, one of these companies to supply an alternating and one a continuous current. This was an excellent arrangement for the consumer, as it introduced the element of competition, and also enabled him to choose between the two currents, selecting that which might be the most useful and advantageous for his particular purpose.

Now with the ordinary householder intending only to use the current for purposes of electric lighting, the great object is to obtain a supply which shall never fail, which shall be equable in its pressure, and be as free as possible from danger in respect of fire and life; but in the case of many persons using the current either for purposes of their trade in driving motors and so on, or in the case of a doctor using it for the ordinary medical purposes of heating cauteries, lighting small lamps for endoscopes and larynyscopes, faradisation and galvanism, other considerations come in; and before pointing out some of the details of the use of the current for these purposes,

it may be as well to explain the differences between the two methods of supply, the alternating and the continuous.

In the continuous current system the current is generated by the dynamos in the central station of the district, and from there distributed along the mains to houses in the various streets over which the company has control. The current is *continuous*, that is to say, its direction is always the same. It always flows along the wire from the dynamo in the same direction—from the positive pole—and returns along the other wire to the negative pole. It leaves the dynamo at the pressure (approximately) at which it is to be supplied to the house, usually 100 volts. A current of this voltage is absolutely safe to life, and though the sensation created by touching the two poles of a 100 volt circuit is not pleasant, it is harmless. This is always considered, and rightly, one of the great advantages of the continuous current supply, and many people seem to think there is no other side to the question, but to my mind there are several, of which I will mention a few. The amount of current which a pure copper electric main or wire of a given length can convey depends on its diameter, and this amount of current (which is measured in ampères) is entirely independent of its pressure or voltage. Therefore a wire of B.W.G. 8 can equally well convey 20 ampères of current at 1,000 volts as it can 20 ampères of current at 100 volts. But however pure the copper of the wire may be it has a certain resistance, and if the length of the wire be considerable that resistance mounts up. What is the result? The current sent in at the end of the main by the dynamo at 100 volts emerges at the other end of the main at 98, 96, or whatever it may be, depending on the relation of the diameter of the wire, its length and its purity, to the quantity of current sent along it.

Hence the consumers drawing their supply at various distances along the main receive their current at varying pressures. But they all want it at one pressure, say 100 volts; how is this to be met? The companies have attempted to meet it by laying what are called feeder mains as well as the house-supply mains. From these feeders no house supply is given, but at given points along the supply main they pour their current in at 100 volts, irrespective of what pressure the current may have had to be put into them at the other end. Given these feeders numerous

enough, the difficulty is very fairly met, but in how many cases are they numerous enough, for the cost of these copper mains is so great that the companies can hardly afford to put down as many as they really require? Hence the pressure or voltage at various points along the mains is very different, and we at Westminster Hospital are receiving our current at a voltage of 103—105 instead of 100, because we are near a feeder (or a central station). I know as a fact that the volt meter curves taken by a well-known electrical engineer in his office not 150 yards from the hospital, and on the same supply as ours, have shown 103—105 volts for days together. This is one of the great disadvantages of this system of supply, as the lamps, being only intended to burn on 100 volt circuit, give a most excellent light, but only last a portion of their proper life, and lamps for the present cost 3*s*. 9*d*. to 4*s*. apiece.

In the alternating current system on the other hand, the direction of the flow of the current is ever varying, at one moment flowing along the wire in one direction, at the next in the opposite. These alterations take place with varying rapidity in the different supplies, but 120—140 per second may be taken as an average. The current from the main stations is, in this system, conveyed to the houses at a very considerable pressure, usually 2,000 volts, and it is there reduced to the pressure at which it is required in the house, 100 or 50 volts; and here comes in one of the great conveniences of the alternating current. This reduction can be effected in the most simple manner by the use of a transformer, which essentially consists of two coils of insulated copper wire surrounding a soft iron core. The one coil is wound directly on to the core, and the other over the first. The inner is called the primary, and is placed in the 2,000-volts circuit of the mains; the outer is called the secondary, and is placed in the house circuit, attached to the two terminals of the house mains. By suitable adjustment of the size of the wire and the relative number of turns on the two coils any reduction in the pressure required can be produced. But not only is the pressure reduced, but at the same time the quantity of the current at the reduced pressure is increased. An example will show what is meant. If a current of 10 ampères be passing through the primary at 2,000 volts, and the coil be so wound as to give off the current at 100 volts, the secondary current given off will amount to 200.

ampères at that pressure (100 volts), less a certain small loss —about 1—1·5 per cent.—in the transformer. And herein consists the main advantage of the alternating current system from the point of view of the supply companies, that so small a quantity of the high-pressure current need be carried for each house by their mains, and hence the mains need not be very large, and can, at any rate, be made large enough to fairly carry the current without great loss from resistance, and also enable them to keep the pressure equal all along their system. And even if the voltage of the primary current do differ at different points in the circuit, it is perfectly easy, by accommodating the winding of the transformers to this state of things, to give the consumers anywhere on the circuit their current at 100 volts exactly. There are, however, disadvantages about the alternating system from the point of view of the company, one of which is the loss of energy in the transformer, which is always going on, even if there be no current taken off from the secondary by the consumer. This means of course that they must be always using a considerable amount of energy in generating current, even when hardly any is being used and paid for. But this is a difficulty which has been got over in some of the more recent installations by placing the transformers in sub-stations instead of in the individual houses, and employing a man or mechanical means to throw them in or out of circuit as the load comes on or goes off them. It has also been brought forward as an objection to the alternating high-pressure system, that it is more dangerous to life, and more liable to cause fire. But to the consumer there is no danger as long as the insulation of the primary from the secondary coil remains perfect, and with reasonable care in the making and using of them one really does not see why any damage to this should occur, and even in event of its failure, great protection can be given by means of safety fuses on the secondary circuit. And then the recent experiments of Tesla have shown that if the rapidity of alternations of the current be sufficiently great, even an extremely high voltage current may pass through the human body without producing any ill effects, which opens up a great field of possibilities for the future.

I know that these remarks may be said to be rather wide of the exact subject matter of this paper, but on the other hand I felt

that it was difficult to speak of the question of the medical use of the current without putting forward clearly the character of the two currents available, and as we shall presently see that the question of their applicability to medical purposes also requires one to choose between the two forms of current, it will be found that it is impossible to make this choice satisfactorily without taking into consideration its convenience for the ordinary domestic purposes.

It will, however, be found that there is usually, unfortunately, a further matter which must be taken into consideration, and that is the reliability of the company, namely, the regularity of its supply and its freedom from breakdowns, and sometimes this consideration may be sufficiently powerful to outweigh all others, as any one who has had their electric light go out a few minutes before a dinner party, and remain out for some hours or days, will readily understand. Let it be assumed that the current adopted from these various reasons be the continuous, and let us see what are the methods of using it for the various medical purposes.

These may be enumerated as heating galvano-cautery and snare; heating small lamps for the various endoscopes and search lights. Electrical testing and treatment of muscles and nerves, requiring a continuous current from 1 to 60 volts (approximately), but of small amount and an interrupted current of high voltage and not too frequent interruptions. A continuous current for electrolysis, in Apostoli's treatment of fibroids, and in the case of nævi, for instance, and a current for electrical baths. I put on one side altogether statical electricity and its uses.

Now these various uses may be divided practically into two, namely, the cautery and small lamps and the remainder. All the latter can be done excellently by means of the various forms of Leclauché batteries, which are durable, lasting, and equable in their electro-motive force. The two former, however, cannot satisfactorily be worked except by acid, or acid and bichromate batteries (the question of accumulators has not been here referred to, as they can be so much better used in conjunction with a house supply current), and these are the generators of electric energy which no one who has been obliged to use them wishes to keep a day longer in his house than he can help. For though the

makers of them will tell you that with their special form of battery, or plate, or solution, that the battery will always be ready for use over periods of some months, one is constantly finding oneself in difficulties and unable to obtain the current required. It may be said that some forms of dry Leclauché cell can be used for lighting small lamps, and so they can, but not really satisfactorily, and this use of the cells will rapidly cause their deterioration.

Let us then first consider how the continuous current of 100 volts may be used for heating platinum-tipped cauteries requiring 13 to 17 ampères at 4 volts, snares of iron wire of various lengths, requiring 10 to 15 ampères at 4 to 8 volts, small endoscope lamps taking about ·5 ampères at 6 volts, and other small lamps requiring perhaps a little higher voltage.

Practically the methods are three: (1) charging secondary cells or accumulators from the house main, and utilising the current from these cells for the purposes mentioned; (2) inserting a resistance in the main circuit, and by means of this resistance, made either of a great length of German silver wire, or of iron or platinoid wire immersed in water, reducing the voltage directly to that required; (3) placing a small continuous current motor in the main circuit with an arrangement on its spindle for rapidly breaking and making the circuit or else alternating it, and then by means of a transformer reducing the current given off from the motor at nearly 100 volts to the required voltage.

There is one of these methods which for use in a private house is perfectly satisfactory, if the user be careful and have some slight knowledge of electricity. I refer to the first method mentioned above. Nothing is simpler than to charge these cells; but they must always be kept nearly or quite fully charged, and will not stand having all the current stored in them used up before they are recharged. The method of recharging is to place them on the main circuit in series with a lamp, usually a 16-candle power lamp, and that lamp may be best a hall or passage lamp, which is naturally running for some hours, and whose brilliancy can be slightly diminished without any inconvenience being caused. The accumulators may be placed in the consulting room, and the wiring of this particular lamp may easily be arranged so that by means of a switch the

charging may be commenced at any moment, and, if necessary, for as long as the light is used. The only objection to this system is that the charging process must not be forgotten, and that when the cells are charged, which can be easily recognised by their making a bubbling, hissing sound, they must be cut out of circuit. They are also tolerably expensive, but are probably the cheapest method of using the continuous current, and they possess the undoubted advantage of being easily removable, and though heavy, perfectly portable, so that they can be taken to operations performed away from home. Cost about £7 10*s.*, and special wiring 20*s.*—40*s.* extra.

The second method—that of inserting a resistance in the main circuit, and so reducing the voltage of the 100-volt current —will work admirably as far as small lamps are concerned, as they only require about ·5 ampère of current, and therefore there is no particular difficulty about the resistance, in fact, of an ordinary 8 c. p. lamp will act very well as the main portion of the resistance for a 6-volt lamp; but, unfortunately, it will not allow enough current to pass to heat a cautery or loop, and therefore more elaborate resistances have to be used. There are two main objections to this method of using the current; one is that for every ampère of 4-volt current used an ampère of 100-volt current must also be used; so that heating a cautery requiring 13 ampères will take from the main a current equivalent to what would light twenty-one 16 c. p. lamps, and a cautery of 18 ampères, thirty 16 c. p. lamps. This large drain of current will probably produce an obvious and objectionable diminution in the brilliancy of all the lamps then burning in the house, unless the house mains have purposely been made especially large, or a special wire carried from the main fuse or the company's main directs to the point where the cautery is used; and even in the first instance the branch from the main to the cautery plug must be of especial thickness to carry such a large number of ampères. The other objection is one that has been put forward by some electricians; but I think it is more theoretical than real—namely, that if the wire snare or the cautery broke whilst in contact with the patient's body, and there were a leak in the company's street main or in the house wiring, the 100-volt current might pass through the patient's body from the point of the broken cautery to the earth (repre-

sented in this instance by the floor of the room). Practically this occurrence, which, though only extremely unpleasant to the patient and not in any way dangerous, could be rendered quite impossible by placing the patient's chair and feet (and perhaps the doctor's, too) on an india-rubber mat, and seeing that no part of their bodies touched any of the surrounding objects.

But the extravagance of the system is its main objection, as it would cost ½*d.* to heat a cautery for one minute (B. of T. unit costing 8*d.*), and in hospital work this would mount up considerably. Cost of the apparatus is about £8, to which add a varying sum amounting to several pounds at least for special wire from main.

The third system is the combined motor and transformer, and though it is the one which has been adopted in our hospital, I don't think it is very desirable either from point of view of convenience or cost. As I said above, this system consists of a motor to interrupt or alternate the current which then passes through a transformer similar to that which will be described when dealing with the use of alternating currents. In the first place, a motor running rapidly is sure to make a noise unless it be expensively constructed, when it will alone cost some £8, and even then it will make some noise. Then the cheaper motors have a dead point, and when in this position have to be started by hand, so that if the motor be put outside the room to avoid the noise near the patient, it is necessary at the last moment, when everything has been adjusted, and the cautery or snare is just going to be used, to leave the patient walk out of the room and start the motor, unless there happens to be some one else in the room who knows what to do and will do it. The contact pieces of these motors too always spark, and after a time considerable trouble occurs from the burning of the metal. The motor must be started before the current is turned on in the transformer, otherwise the motor will come to grief in no time, and this results in a double turning on being necessary, which practically makes a special foot-contact switch a necessity.

The motor costs some £4, transformer £8, foot-contact 20*s.* to 30*s.*, much the most costly form of apparatus.

Although I consider the accumulator system much the best for a private house, on the continuous current service, there are difficulties about their use in a hospital, unless the duty of seeing that they are kept properly charged can be thrown on some

reliable person. If that can be arranged, then they should be used. Otherwise I think the second system, with all its faults, is perhaps the best, but as I shall point out presently, I consider the alternating current much the most useful for hospital purposes. We now come to the consideration of how this current may be employed for various other purposes, such as testing, treatment of paralysed muscles, and electrolysis.

All these ends can be obtained by means of an apparatus similar to the second one described, but really the arrangement is so wasteful, and the ordinary plan of using Leclanché cells so satisfactory, that one cannot advise that the idea should be entertained. Such an apparatus, however, has been made for one hospital, and I believe works satisfactorily.

Let us now turn to the alternating current, which is delivered to the consumer either at 100 or 50 volts, as he wishes. The apparatus by which this can be converted to the form of current required for heating cauteries, snares, and lamps, is a mere adaptation of that adopted by the company in reducing the 2,000-volt current to 100, namely, by the use of a transformer, so wound as to transform ·6 ampère at 100 volts to 15 ampères at 4 volts, with an additional winding to give ·5 to 1 ampère at 6 and 8 volts respectively for various small lamps. A transformer to produce this result is sold under the name of "Woakes's Patent Transformer." It consists of a primary coil wound on a small bundle of iron wire, the whole forming a cylinder about 3 inches in diameter and 12 inches long. The resistance of the primary coil is such that no harm can result from over-heating, should the secondary coil be accidentally short-circuited. The primary coil is made movable inside the secondary coil, so that it can be slipped in and out, thus enabling the user to regulate the secondary current to a considerable degree. The secondary coil is wound in various sections, so arranged that the ends of the various sections are brought to different sets of terminals, of which there are three. One of these is marked "cautery," and gives from 15 to 17 ampères at 4 volts, another is marked "light," and gives ·5 to 1 ampère at 6 volts, and the third is intended for use in faradisation,* but as it gives about 8 volts it

* The alternating current is not very suitable for faradisation owing to the rapidity of alternation being so great that very little effect is produced upon the human organism.

can be better used for other lamps requiring a higher voltage, such as are used in Leiter's forehead lamp.

The arrangement works admirably, and as the amount of the 100-volt current used is only ·6 ampères at the most (when the cautery is being used), the apparatus can be attached to any wall plug, and can be easily taken from place to place and used where required. Hence its extreme convenience in a hospital, where it may be wanted in various out-patient rooms or even in the wards and theatre. There is absolutely nothing about the machine which can get out of order, as there are no rapidly moving parts about it, and it is always ready for use at a moment's notice. The cost of using the cautery current from this is ½*d.* per hour, that of the small lamps still less.

The machine as usually fitted has a pilot light in parallel with the primary coil to show that the current is passing, but I hardly think this is necessary, and it nearly doubles the amount of current used. It has also a switch fitted on the board for turning the current on and off, but this is inconvenient, as it necessitates getting up to turn on the current, unless it be kept on all the time the operation is being performed. A better arrangement is one which I have had fitted to several of these transformers, namely, a foot-contact attached to the transformer by a flexible wire, which completes the circuit by simply pressing with the foot, leaving the hands entirely free to hold the cautery, speculum, &c.

The cost of this transformer, as mentioned above, is about £8.

The conclusion one would draw from these various considerations is that the doctor who wants to use the house lighting current for medical purposes will be much better off if he can get a supply from a good company supplying the alternating current than from one supplying the continuous current.

ON THE USE OF THE AËRO-URETHROSCOPE IN THE DIAGNOSIS AND TREATMENT OF CHRONIC URETHRAL DISEASES.

By Mr. W. WYNDHAM POWELL.

The superiority of the aëro-urethroscope over the old instrument is very marked, and in the following account of urethroscopy its advantages will be specially pointed out.

The instrument is practically a Leiter's, but with the essential modification that by means of an india-rubber bag arrangement, such as is used with the ordinary spray producer, the urethra can be distended with air at will and to the exact degree required. The air is prevented from escaping outwards by a disc of glass, which is fixed into the base of the funnel-shaped nozzle and inwards by the constrictor urethræ muscle. It is, of course, only the pre-membranous urethra that can be examined by this method. In the diagnosis of strictures of large calibre or organic narrowings the method is invaluable.

The urethral tubes or cannulæ are either 3 or 5 inches long, and convenient diameters are 22, 24, and 26 (French scale). Sometimes a No. 28 can be used but usually only after a meatotomy. Through this size an excellent view is obtained with a brilliant light, the different lesions being as easily seen as similar ones on the tongue, for instance, would be when examined in broad daylight. A tube is selected which fits the meatus tightly, and if a No. 22 cannot be inserted, generally speaking, the meatus should be divided, as the view through a very small tube is of little value. Otis has shown that the size of the urethra bears a more or less constant relation to the size of the penis. The meatus should also bear the same relation to the size of the urethra, for if below a certain size evil consequences

are liable to follow. He says, "The presence of a contracted meatus urinarius, or a stricture of large caliber, often unnoticed, is capable of exciting chronic closure of the membranous urethra quite undistinguishable from true organic stricture, but which disappears completely on the thorough division of the anterior contraction." According to Berkeley Hill, "abnormal smallness of the meatus is occasionally the sole cause of the continuance of a gleet, and its free division is followed by complete disappearance of the discharge." Most authorities are agreed on this point. The narrowing, which is usually about a quarter of an inch from the orifice, is often congenital, but may be acquired, either in childhood from a long foreskin and attacks of inflammation, or in the adult from urethritis.

Meatotomy can be made an absolutely painless operation by inserting into the first inch or so of the urethra a plug of lint soaked in a 20 per cent. solution of cocaine, and keeping the outer end moist with the same solution for 10 minutes. The incision, which should be deliberately made with a probe-pointed bistoury, should extend externally slightly to one side of the middle line for at least a ¼ or even ½ an inch, so as to well open up the fossa navicularis. The opening should be kept patent by the daily insertion of as large a bougie as the urethra will conveniently admit. The urethroscopic examination should be deferred for a week or a fortnight.

Before the electric light exploration is made the very nervous have sometimes to be assured that the light itself will not be introduced into the canal, and in one case at least I had to demonstrate to my patient that the apparatus could not explode. A long tube having been selected and after well lubricating (with ʒi. eucalyptol or gr. i. menthol to the ounce of olive oil, or 5—10 per cent. eucalyptol in oleum Deelinæ [a paraffin oil of excellent consistence]) is introduced for an inch or an inch and a half into the urethra, and held in position while the vulcanite introducer is taken out and the nozzle of the illuminating part fixed on. The air is now turned on and the urethra inflated while being watched under the light, excessive distension being thus prevented. The tube can now be pushed down to the membranous urethra practically without touching the sides of the remaining canal, and friction is limited to the meatus or its neighbourhood. When familiarity with this method is once

acquired it is wonderful how painless and unirritating the proceeding is in the most diseased states of the mucous membrane. But it is when turning round the bend of the bulbous urethra that inflation shows to the best advantage. It is almost impossible, in the ordinary way, to introduce a straight cannula into the membranous urethra in diseased conditions of the deeper parts without causing some hæmorrhage and so obscuring the view, and in a great number of these cases it is the pre-membranous inch or so that is so deeply congested and vascular. Now during inflation it is this very part which is so distensible—chiefly the floor (sinus of the bulb)—and when viewed under the light the end of the tube is seen to be quite free in, comparatively speaking, a large cavity. By depressing the cannula its distal end can be applied to the mouth of the membranous urethra, the vulcanite plug inserted, and the whole pushed painlessly on.

The *membranous urethra* is sufficiently sphinctered by the constrictor urethræ muscle, as well as by a well-developed layer of plain muscle fibres which surround this part, to resist a great amount of air pressure. When the pressure is too much for the muscular resistance, some of the air is allowed to pass in a "gulp," and with a peculiar sort of croak. The tension in front being thus reduced, the muscle immediately closes again. This reflex tonicity varies greatly in different individuals, and in health and disease. It is generally very taut in chronic inflammation, and superficial erosions of the mucous membrane of the part, and also in other conditions, such as stricture or narrowings of any portion of the canal in front. The mouth of the "muscular urethra," as this part has been called, is slightly beyond the anterior triangular ligament, the position of which can generally be made out in the roof of the canal. Its shape is that of a shallow funnel, which becomes deeper as the air pressure is increased, and is puckered up like any other sphinctered orifice. The power of this "sphincter" is noted as a matter of routine in those for whom injections are about to be ordered, and the patient cautioned to use no force where the part is toneless, as the injection may easily enter the bladder. Only last week a rather anæmic young fellow came to me for a slight gleet of 2½ years' standing. His urethra could not be properly distended with air, so easily did it pass through the membranous

part. His urethritis was of the catarrhal type. He assured me that he used an ounce syringe, and was very unhappy because it did not produce the feeling of distension, which he was told it would do if properly used. At his next visit, two days ago, before interfering with his urethra I injected 5 ozs. of warm boric acid solution into his bladder from the meatus without his feeling even the faintest sensation of urethral distension. He forgot to bring the syringe, so I have not been able to verify his account of its size, but from his description I think it must be a half-ounce. Again, the opposite condition may exist, and you may distend the canal to the limit of safety without the least effect on the constrictor urethræ muscle. Where the spasm is great and continuous an organic stricture is very frequently diagnosed, and treatment adopted accordingly. Every practical surgeon knows this. I will again quote from Professor Otis's works:—"Deep organic urethral stricture is often simulated by muscular spasm, the result of irritation caused by slight anterior strictures, even by a slight contraction of the meatus urinarius alone. The great proportion of cases treated by gradual dilatation are treated for deep stricture, which does not exist."

About a fortnight ago a gentleman came under my care for the treatment of his stricture. He had been treated by a well-known West-end practitioner for about two years, and had been supplied with a No. 8 English bougie, which he passed about once a week. The stricture was becoming "tight" again, and it was time, he thought, to have it dilated up, as it had been periodically done before. No stricture could be seen with the urethroscope, but there was spasm of the membranous urethra, and after cocainizing this part a No. 15 English bulbous bougie à boule slipped through with the greatest ease.

About two years ago, before adopting the routine practice of using cocaine and the urethroscope, I explored a gentleman's urethra with a No. 12 English bulbous bougie à boule for a gleet. There was not the slightest obstruction till the membranous portion was reached, which was in a condition of spasm, and strongly resented the intrusion of the instrument. By gentle, continuous pressure it eventually slipped through, not, however, without producing faintness and vomiting. I never repeated that rough and ready means of diagnosis; it was too expensive, for my patient left me. But the last state of that man was worse

than the first, as about two months afterwards a medical man informed me that he was about to be cut, under chloroform, for stricture.

Otis gives details of a case where a man had been treated on and off for 5 years for deep urethral stricture, complicated with many attacks of retention of urine. The meatus admitted a No. 23 French, and the membranous urethra, after considerable trouble, a No. 12 French bougie. After dividing the meatus a No. 34 French steel sound slipped by its own weight into the bladder. In another case only fine filiform bougies could be passed, and those were hugged in the deep urethra. The meatus, which admitted a No. 24 French bougie, was divided, when a No. 30 French steel bougie passed by its own weight into the bladder. Any one familiar with the use of the aëro-urethroscope, however casually he may make the examination, can scarcely commit such errors of diagnosis.

Appearances under Inflation.—The *normal urethra* is very distensible, and is more or less regularly and finely constricted with the intervening spaces outward bulged. It reminds one rather of an artery, the muscular coat of which is affected with calcareous degeneration. A cast of the urethra, which I have taken in wax under considerable pressure, shows the same thing. Sometimes two or three of these constrictions are well marked, and although natural, greatly resemble commencing strictures. They are quite white from the stretching of the mucous membrane over them. The whole canal is anæmic from the air pressure, but this is especially marked in the floor of the proximal inch or so of the bulbous part (sinus of the bulb). White fibrous bands are there very easily seen, and must not be mistaken for cicatricial tissue. They are irregularly disposed, but generally speaking, converge towards the membranous urethra. This is the whitish end of your urethroscopic field, and may often be seen with the tube inserted only just within the meatus if the pendulous penis be brought well up into a line with the more fixed portion, and the peno-scrotal angle further straightened out by pulling down the skin over the pubes, which may be done with the little finger of the left hand. With the patient in the horizontal position it will be found that the tube is vertical or more or less inclined towards the abdomen. If it be now pushed straight on its distal end will impinge on the depressed floor of

the bulbous urethra a little in front of the anterior triangular ligament, and will have a direction as nearly as possible at right angles to the canal immediately beyond.

It is thus evident that a very abrupt curve is found after inflation in the premembranous inch or so of the bulbous urethra and is due to the great distensibility of its floor.

In the *diseased urethra* the different lesions may be readily recognised. I have given up examining cases of any acuteness, having found that nothing was gained to assist in treatment. It is in the diagnosis and treatment of conditions giving rise to a chronic gleet where the urethroscope will be found of such signal service.

A *gleet* may be described as a scanty muco-purulent discharge which may or may not show at the meatus. Frequently it appears as a drop which may be squeezed out in the morning only; or there may be glueing of the meatus without evident discharge. Often again all that there is to show is a small irregular string, or perhaps a flake or two of coagulated discharge in the urine, especially in the morning. This last symptom, from its apparent insignificance, is very liable to be neglected, but it should on no account be allowed to persist without an examination of the urethra, as it is often the only evidence of a chronic stricture-forming process. About eighteen months ago a gentleman came under my care for nocturnal emissions and obscure pains in the back. He said that he had had no sort of discharge or stickiness since recovery from a gonorrhœa 6 years before, and on external examination I could find nothing amiss. The urine, however, contained a "string" about half an inch long which he had not noticed. With a No. 12 English bulbous bougie à boule tenderness and narrowing of the bulbous urethra were found. I explained the probable cause of this trouble and advised local treatment, but he got well with a mixture of sodæ bicarb. and potass. bromid. I saw him a few times during the following 12 months. He attended me again about a month ago for the same nocturnal trouble. String in urine still, but never discharge or stickiness. Urethroscopic examination showed well-marked stricturing of bulbous urethra admitting a No. 9 English bougie. In this case the stricture narrowed from the size of a No. 12 English bougie or larger to a No. 9 English, while partly under observation, and

there was no evidence of it but the string in the urine. The tiny short and thick, or long and often corkscrew-shaped threads which so frequently follow a gonorrhœa must not be confounded with these stricture strings.

By far the most interesting sight with inflation is that of *stricture.* One has been so accustomed to explore and grope about in the dark, that the naked-eye appearance obtained by this method comes as a revelation. Besides, the actual position and size can be determined at a glance, and the proper instrument selected for treatment without any worrying of the urethra with unsuitable bougies. With a cannula inserted for only an inch, a stricture may be seen up to within about half or three-quarters of an inch of the bulbo-membranous junction. Of course a second anterior stricture, unless it be one of a fairly large calibre, will obscure the deep one. As a rule, after inflating a stricture will project into the canal like a thin, white diaphragm, with a more or less central perforation, and as the canal beyond is also inflated, but only faintly illuminated, the aperture appears dark, and contrasts strongly with the surrounding band of cicatricial tissue, the mucous membrane over which is bloodless from stretching and air pressure. Sometimes, especially when the aperture appears oval or a mere slit, on closer examination with a narrow tube a semilunar or crescentic, sharp-edged, membrane-like projection will be opposed by a similar one on the opposite side, but placed a little beyond. By this arrangement the opening is seen to be very small, although in reality the canal is not so. An inch or more of the urethra, generally about the bulbous part, is sometimes affected with several of these cicatricial semilunar or crescentic valves, and they remind one a little of the valvulæ conniventes of the intestine. They give rise to the sensation of roughness so often felt while passing an instrument through these long strictures. When the urethra is in its natural collapsed condition it can easily be imagined how these valve-like projections overlap one another and obstruct the passage of a rigid bougie. This is the condition where the "ferret," which is a filiform bougie with a certain permanent twist at the end, is found to be so serviceable. Occasionally the urethra will be seen on inflation to be obviously narrowed for a quarter of an inch or so, but the white cicatricial appearance will be wanting. This may be an

infiltration of the submucous tissue with inflammatory material, but is sometimes undoubtedly spasmodic, as after gently dilating with the end of the cannula it completely disappears.

In all chronic inflammatory conditions the mucous membrane, even when the urethra is inflated, can be seen to be hyperæmic, and these patches contrast with the anæmic healthy part. To examine the mucous membrane more closely the air must be let out, and to facilitate this I have had made an improved nozzle, the base containing the glass of which can be opened with a spring like the lid of a watch. Mr. Hurry Fenwick had previously improved on the old one in having this part removeable by a bayonet catch arrangement. The tube having been applied to the mouth of the membranous urethra, and the air let out, is gradually withdrawn, while every inch of the lining membrane is carefully inspected. If the meatus grip the tube very tightly, the glans should be kept well back with the left hand, otherwise owing to the traction on the penis the mucous membrane will not fall closely over the end of the cannula. The "central figure" of the healthy urethra is a small point or star, and is often obscured by a speck of mucus or lubricant. At the meatus it is, of course, a vertical slit. The healthy mucous membrane has a peculiar longitudinally streaked appearance, owing to its folding in the direction of the long axis of the canal. It is of a pale pink or reddish colour, which may be made to vary slightly by pressure with the end of the cannula. With a little practice and a good light, the least trace of superficial disease can be easily detected.

The *granular patch* which one hears so much about is by no means of frequent occurrence, and only now and again a good example of it is met with. By far the most common condition found in gleet, when glueing of the meatus or discharge is present, is a *chronic inflammation* of a portion or portions of the urethra with or without concomitant narrowing. Very frequently this is confined to the deeper parts of the penile urethra, and when seen to occupy the orifice of the membranous part will often be found to extend to the canal beyond, where, however, stricturing is very rare. Sometimes only a general catarrhal condition is to be made out, the mucous membrane being often pale or slightly hyperæmic, wet, and toneless. For this condition some form of tannic acid

injection is indicated, the following being a favourite prescription :—

℞. Zinci. acet., grs. ii.—iii.
Tinct. catechu, ♏xv.
Aquæ ad, ℥ i.; ft. inject., t.d.u.

In other cases, usually together with a general catarrhal hyperæmia, there may be seen, on inflation, a number of whitish hemispherical bodies projecting into the canal beneath the mucous membrane, each about the size of the head of a blanket pin. These are glands around which effusion of inflammatory material has taken place. The condition appears to be quite uncommon; and in the last case that I had under treatment, where the discharge was rather free, the permanganate of zinc injection, 1 gr. to 8 oz. of *distilled* water, acted well, and caused them to disappear in a short time. Two suburethral nodules also subsided concurrently. Yet another example of what may be found in chronic gleet. A gentleman who contracted syphilis and urethritis at the same time came under my care about 15 months ago. All sorts of injections were tried through some months for the gleet that followed, with varying effect. The syphilis was treated with mercury. After the failure of injections a urethroscopic examination was made. The urethra was found to be studded with about a dozen more or less oval raw-beef-like patches, each with an exceedingly well defined margin, and extending about one-third or half-way around the canal. The intervening mucous membrane was perfectly healthy. Berkeley Hill has figured a similar condition, and called it "chronic gleet."* I do not think that they were syphilitic, although they might have been influenced by the constitutional affection. Recovery did not take place for 9 or 10 months, and after many applications to the spots of a solution of nitrate of silver 5 grs. to the ounce. The canal is now quite free from the old disease, but is somewhat whiter than natural.

A few hints may here be given with regard to *topical treatment.* There is no solution in my experience to equal that of silver nitrate. It is applied on absorbent cotton fixed on a proper urethral stylet in strengths of from 5 to 20 grs. to the ounce. When the stronger solutions are applied, the dab of

* Chronic urethritis, London, 1890.

cotton should not be too wet; it may then be held in contact with the diseased patch for a few seconds with scarcely any subsequent discomfort. Usually, however, the weaker solution will be found effectual; but may require several applications. Where a patch is found on one side only the end of the cannula should be "lateralized"; and as this end is oblique, it can very easily be applied and held firmly over any one spot you wish, and the solution applied to it alone. For the prostatic urethra, which is often found congested, an elbowed cannula should be used, and a solution applied to the sinuses, or wherever you wish, through the hole on its inferior aspect, which should *not* have a glass diaphragm in it. The prostatic canal, and also any very sensitive patches, should have cocaine applied a minute or two before the stronger silver solutions. I have recently taken to use the cocain. *nitras*,* as the hydrochlorate, of course, precipitates the silver as chloride; a 5 per cent. solution of cocain. hydrochlor. being more than sufficient to decompose a 10 gr. to the oz. solution of silver nitrate (2 of cocain. hydrochlor. precipitates about 1 of $Ag\ NO_3$). Cocaine solutions should be preserved with 1 in 700 acid. salicylic.

The dab should never be pushed completely beyond the distal end of your cannula into the urethra, as this is both painful and useless. If any considerable extent of the urethra requires the caustic solution, it should be applied by a series of quick, short thrusts of the stylet holding the cotton, while the tube is being very gradually withdrawn.

A few cases may now be given illustrating the value of purely local treatment by means of the urethroscope. The first is that of a man who had a gleet for 18 months, and had, under medical advice, taken medicine and used injections during the whole of this time. With the urethroscope a well-marked congested patch could be seen just in front of the bulbo-membranous junction. A very few weekly applications of a 5 gr. to the oz. solution of silver nitrate was sufficient to bring about a permanent cure. This was 18 months ago, and I have examined his urethra on two or three occasions since, and it has remained perfectly healthy. The next is the case of a lady who had been for 21 months under the care of a well-known West-end practitioner for a constant pain referred to the

* May be obtained from Martindale's.

urethra. It began shortly after marriage, and her life had been a perfect misery to her since on account of the tenderness and the pain in walking. She had taken "gallons" of physic to no purpose, and she was beginning to despair of ever obtaining relief. On examining the urethra with the urethroscope it was found chronically congested and slightly granular in parts. There was no caruncle. A 5 gr. to the oz. solution of silver nitrate was applied through the cannula to the whole mucous membrane, and a No. 16 English bougie passed. The relief was magical. She could walk during the following week for miles, whereas before a couple of hundred yards would disable her. Three more weekly applications with slightly stronger solutions permanently cured her. This was twelve months ago, and there has been no return of pain or discomfort.

Another case is that of a student of another hospital who rang me up one night for urethral hæmorrhage. He was in a state of great alarm, his linen being covered with blood. On urethroscopic examination a recently ulcerated surface, with ecchymosed edges, was found just beyond the deep end of the fossa navicularis. This was carefully dried, and a 10 gr. to the oz. silver nitrate solution applied by the usual means, and held on for several seconds. The end of the tube was "lateralized" so as to fit over the ulcer. There was slight recurrence the next evening, when the treatment was repeated. On the following evening a weaker solution was applied for slight sero-sanguineous discharge. After this there was no recurrence. He thought that the sore was caused by a crystal of permanganate of potash being accidentally taken up in the end of the syringe. The injection was made hurriedly by putting a few crystals in a saucer containing water, and was used simply as a preventive. He suffered intense pain at the time, and guessed what had occurred. The profuse hæmorrhage took place two days afterwards.

In one case of chronic discharge I detected a suppurating crypt in the fossa navicularis, which, after being slit up and cauterized, permanently healed and the discharge ceased.

Many other cases could be given where the uretheroscope has proved of very great value, and I can very strongly recommend the instrument to those who take an interest in the subject.

GEORGE JAMES GUTHRIE,

A BIOGRAPHICAL SKETCH.

By Mr. P. MACLEOD YEARSLEY.

(The substance of this sketch was read before the Guthrie Society on June 9th, 1892).

The individual of whose life the following sketch is, I fear, only too inadequate, was one of the most illustrious surgeons ever attached to the Westminster Hospital, and the Institution should be ever proud of its connection with one who not only served his country with a devotion and activity difficult to surpass, but so changed the whole subject of military surgery as to cause foreign powers to adopt his principles. But however prominent the public services he rendered to the cause of humanity, it is his earnest endeavours for the good of our hospital and medical school that especially draw us towards him, and a few minutes given to the consideration of his career cannot be without advantage.

George James Guthrie was born on May 1st, 1785, at Wakefield. His grandfather, a Scotchman, fell fighting bravely for his King at the Battle of the Boyne, and his son, Guthrie's father, served as a surgeon in the Royal Navy. On his retirement he succeeded to the business of his maternal uncle, also a doctor, at the latter's death. It sounds strange to our ears that this business, by which a fortune was made, was established for the sale of an improved "*Emplastrum Lithargyri.*" Unfortunately for the subject of this sketch, old Mr. Guthrie lost heavily late in life by wild speculations, leaving the son with nothing to depend on but his own exertions, and it was mainly by these exertions that he attained that high proficiency in his profession which gained for him the position he held in after years. Early going to school Guthrie had for a master an Abbé who had taken refuge in England at the first dawning of the French Revolution, and from him he so mastered the French language that he was

frequently taken to be an *emigré*, even in France itself. Needless to say this proficiency was of great use to him while serving in the Peninsula.

When Guthrie reached the age of thirteen, Mr. Rush, the then Inspector-General of Army Hospitals, suggested that he should enter the Army Medical Service, and promised him an appointment as soon as he should be able to hold one. With this opening in view, he became articled to Mr. Phillips, a surgeon in Pall-Mall, and a pupil of Dr. Hooper at the Marylebone Infirmary. While with Phillips he attended the lectures held at the Windmill Street Medical School by Dr. Baillie and Messrs. Cruikshank, Wilson, and Thomas. After two years' hard work he went, in June, 1800, as "hospital mate" to the York Hospital, which was on the western side of the site of the present Euston Square. Many of the wounded from the Helder having come for treatment to this institution, there was plenty of work, and Guthrie dressed for Mr. Carpue and Surgeon-General Keate. A sudden change occurred in March, 1801, when Mr. Keate decided to refuse to employ any hospital-mates who had not passed an examination at the Royal College of Surgeons. There were at the time four of these dressers; three immediately resigned their posts. Not so Guthrie; the very next day after Mr. Keate's announcement he put his name down for the College ordeal, and two days after he was successfully examined by Keate and Howard, receiving his membership diploma at the age of sixteen. In those days there was no age limit for the candidates; but in the following year it was enacted that no one should receive his diploma unless he was of age. The fact of his early qualification enabled Guthrie later to enjoy the position of youngest member on the College Council. His well-deserved success was quickly rewarded, for Mr. Keate immediately promoted him to a regimental assistant-surgeoncy, and he entered the 29th Regiment, in which he soon gained the esteem and regard of his brother officers.

In 1802 he accompanied his regiment to North America, and became full surgeon in 1806. The time for Guthrie to commence that work which led to so great a triumph was now at hand. On July 10th, 1808, Sir Arthur Wellesley sailed from Cork for the Peninsula with 10,000 men, and with him went Guthrie, then only twenty-three years of age. To give a

full and detailed account of his exploits throughout the campaign would be to narrate a surgical history of the war. It must therefore suffice to enumerate the chief events of his work, and to relate one or two anecdotes of his courage.

He was twice wounded: once in both legs by a musket-ball at the battle of Vimiera, and he nearly died of fever in the plains of Guardiana. He was present at Roliça, Vimiera, Oporto, Talavera, Albuhera, Ciudad Rodrigo, Elboden, Sucaparte, Sabujal, Salamanca, and Toulouse, and from the last-named battlefield he made that collection of gunshot injuries of bone which we possess in our Museum. He was also at the two sieges of Badajos and that of Olivença. At one of these sieges he was riding past the city walls on a white horse; the French marshals being always similarly mounted, the garrison thought he was some person of distinction, and straightway fired a cannon at him. The ball passed close behind his back, just above the horse's tail. Most men would have precipitately retired; Guthrie drew rein, and taking off his cocked hat made an elaborate bow in the direction of the gunners, after which he quietly cantered away. On another occasion he was proceeding with a Portuguese escort in charge of some wounded, when his party was mistaken by Sir J. Sherbrook for the enemy; Sir John halted his regiment, and was about to open fire, when Guthrie, perceiving the error, dashed to the front, and being beyond shouting distance, tore open his blue great-coat and displayed the red uniform beneath. His coolness and presence of mind in danger was only equalled by the care and attention he bestowed on the wounded under his charge.

In January, 1810, Guthrie was promoted to be Surgeon to the Forces, and in 1811 was attached to the fourth division, and found himself the chief medical officer at Albuhera of nearly three divisions of cavalry and infantry, and, after the engagement, in charge of 3,000 wounded. In 1812 he was appointed Deputy-Inspector of Hospitals, with charge of seven divisions of cavalry and infantry and a large hospital at Madrid. Here he was allowed to use his own discretion, and no one better deserved the honour. In the retreat from Salamanca it was entirely owing to his activity and promptitude that the sick were not lost. After his arduous services (and few officers, combatant or non-combatant, surpassed him in zeal) Guthrie began to

experience the usual gratitude of a British Government. The medical authorities at home refused to gazette his appointment as Deputy-Inspector on the score of youth, and promoted many men over his head. This roused the wrath of Wellington, who in his despatches made some very caustic remarks anent this manifest injustice.

In 1814 Guthrie returned to England, and was placed on half-pay. Released from the anxieties of a campaign, he attended the anatomical and surgical lectures in Windmill Street in 1814-15, as well as those by Abernethy and the practice at the Lock and Westminster Hospitals and the City Infirmary for Diseases of the Eye. Starting in civil practice, he found it, as many have done since, a struggle of no little severity, and in spite of his brilliant surgical successes in Spain, he seems to have been but little recognised. A study of his published works, to be referred to presently, will show how he had revolutionised military surgery, especially as regards amputation after gunshot wounds of the extremities. Limbs that had been condemned by others were frequently saved by his skill, and his results triumphantly proved the correctness of his practice.

In 1815 he did not rejoin the army, although his friends earnestly besought him to do so; but after Waterloo, yielding to their solicitations, he set out for Brussels. There he performed but two operations, both of which were successful. One, an amputation at the hip, was done on a Frenchman. The second case was that of a private in the German legion, whose right leg was pierced by a musket-ball which wounded the peroneal artery. Guthrie cut down and ligatured the ends of the vessel, and the man made a perfect recovery, his leg having been originally condemned to amputation. This operation was considered to be no small triumph for English surgery, as Dupuytren had been unsuccessful in a similar case, and had declared Guthrie's procedure to be impracticable.

These two patients were conveyed to England and placed in the York Hospital, and with them came a third, also of the German legion. This soldier had been struck at Waterloo by a bullet, which entered just above the pubes and lodged in the bladder, forming the nucleus of a calculus. At the York Hospital Guthrie removed the foreign body, and the case is

remarkable for being the first in which lithotrity was tried in England. The late Mr. Weiss specially constructed a three-pronged instrument which Guthrie introduced. He caught the stone, but lost it. He then attempted to close the lithotrite, but failed to do so. The spectators, it is said, held up their hands in consternation, and Mr. Weiss, who was present, dropped into a chair, white with fear lest the instrument should prove to have been badly constructed. In fact, all seem to have lost their heads but the operator; he opened the lithotrite to its widest extent, and then easily closed and withdrew it, the obstruction having been caused by a fold of the bladder catching in the joint. This occurred before the days of anæsthetics, and the patient had the pleasure of observing the incident, and remarked to Guthrie, "You may cut me about as much as you like, sir, but you shan't put that three-pronged thing into me a second time." The ball was removed fourteen days after by lithotomy, and the man recovered.

By his trip to Brussels Guthrie lost the only two private patients he had, who showed their disapprobation of his desertion by never speaking to him again. Since he was still only on half-pay his prospects seemed none of the brightest; but his friend, Sir James McGrigor, gave him two large wards in the York Hospital, and promised him all the worst cases. Here he did duty for two years, at the end of which time the hospital was broken up. In 1816 he commenced a gratuitous course of lectures to the Army and Navy Medical departments, and these were continued for no less than twenty years. At the end of the first course his hearers presented him with a silver cup, valued at twenty guineas.

It was during the same year that Guthrie proposed to Sir James McGrigor that they should found an infirmary for diseases of the eye. The scheme was warmly supported by the Dukes of York and Wellington, and soon bore fruit, Guthrie being appointed surgeon, and Dr. Forbes physician. In 1827 a site was found for it close to Charing Cross, and the Royal Westminster Ophthalmic Hospital still flourishes.

Not many months had elapsed, however, before a split occurred, which resulted in Dr. Forbes' resignation. The *Lancet* published some strictures upon the management of the hospital, and Guthrie brought an action against the editor.

Dr. Forbes wrote to Guthrie, saying that he could not conscientiously withhold certain unfavourable evidence should the nature of his examination in court tend to extract it, whereupon Guthrie abandoned the proceedings, assigning as a cause Dr. Forbes' letter and conduct, and saying that the latter was the secret enemy who had originated the remarks in the *Lancet.* No little abuse passed between all parties, and Dr. Forbes resigned his post of physician. He further challenged Mr. Thompson, the house pupil, for insulting language, and a meeting took place on Clapham Common on December 29th, 1827, when three shots were exchanged without effect, the antagonists being, probably, more skilful with the scalpel than with the pistol. Dr. Forbes subsequently published two pamphlets, containing all the correspondence, in his own defence.

By this resignation Guthrie took the sole charge of the institution, until in 1838 his son Charles was appointed assistant surgeon.

In 1823 Guthrie's connection with the staff of the Westminster Hospital commenced with his appointment as assistant surgeon in that year, and in 1827 he was made fourth surgeon as a special mark of the esteem in which he was held, there being no vacancy. The hospital was then in James Street, not being removed to its present site until 1834. In the same year that he was made full surgeon, Guthrie became a Fellow of the Royal Society.

In 1834 Guthrie was elected a member of the council of the College of Surgeons, thus starting another branch of usefulness in his career. His activity upon the council was great. Previously the members were very badly treated; among other things, they were only allowed to enter the college by the back door. Guthrie advanced their claims, hunted among the college archives on their behalf, and gained them several advantages, bringing them round from the back to the front entrance. When the matter came before the College Council for consideration, Guthrie appeared with his arms full of papers taken from the records of the institution, and these he deposited before the President as solid arguments in the cause of the members.

In July, 1828, he became an examiner, in which capacity he was greatly disliked and feared by students for his severity and brusque manner. In spite of this he was very fair, and often said that when it came to his single vote he never in his life had

the heart to pluck a candidate. In the same year he became Professor of Anatomy and Surgery to the college, a post which he held for four years, delivering lectures on the following subjects:—"The Anatomy and Physiology of the Arterial System, and Injuries and Diseases of the Arteries"; "The Anatomy and Injuries of the Urinary Organs"; "The Anatomy and Surgery of Hernia"; and "The Anatomy, human and comparative, of the Eye, and its Diseases."

In 1831–32 he was vice-president of the college, and in 1833 he became president, a post he also filled in 1841 and 1854. In 1834 he delivered the introductory lecture and opened the Westminster Hospital Medical School in Dean Street, which he was mainly instrumental in founding, Mr. Hale Thompson and Dr. Robert Bentley being his warmest supporters. Unfortunately the institution of the medical school gave rise to much bitterness between him and the other officers of the hospital. For four years he was lecturer on surgery, and to the time of his death was one of the school's most ardent well-wishers.

On the death of Mr. White, in 1848, Guthrie became consulting surgeon to the hospital, an appointment he had before declined.

He was now approaching the close of his eventful, long, and useful life, saddened by the premature death of his eldest son, the Rev. Lowry Guthrie, a loss which decided him against accepting a baronetcy. He took a lively interest in the surgical work of the Crimean War, and in 1856 published several cases in the *Lancet* which occurred during that campaign. For twenty years he had suffered from winter cough, which gradually increased in severity until the winter of 1856. Although much weakened by suffering, he still kept himself as actively employed as the state of his health would permit, until, on Thursday, May 1st, 1856, his 71st birthday, he died at 5 p.m. from syncope following a severe fit of coughing. With characteristic good-heartedness, the night before he died he wrote a letter to the authorities strongly urging the claims of a soldier, crippled in the service of his country, for admission into Chelsea Hospital, a request which was granted, although he did not live to see it.

In private life he was genial and kindly, towards students he behaved with especial courtesy, extending to them no little hospitality. The *Lancet* of 1856 remarked that, whereas other members of the profession looked upon the medical student as

an uncultivated and bear-like animal, only asking him to dinner when the female part of the family was excluded, Guthrie ever treated him as a gentleman and a future equal.

Of Guthrie's literary labours I have yet said nothing. His first published work was "Observations on and Cases of Gunshot Wounds," which appeared in 1811 in the *New Medical and Physical Journal.* In this he pointed out the inapplicability of the theory of aneurism to the treatment of wounded arteries and the necessity of tying both ends of a cut vessel. In 1830 he published his first work on "The Diseases and Injuries of Arteries," the substance of his lectures at the college, which ran through three editions. He further wrote a treatise on the operations for the formation of an artificial pupil (1819), "Lectures on the Operative Surgery of the Eye" (1823), "The Anatomy and Surgery of Inguinal and Femoral Herniæ" (1833), "The Anatomy and Diseases of the Urinary and Sexual Organs" (1836), "Clinical Lectures on Compound Fractures of the Extremities" (1838), and in 1834 he delivered the Hunterian Oration. Some of his works were translated into other languages, and the Czar of Russia ordered the two relating to military surgery to be translated for the use of the Russian Army, sending Guthrie two diamond rings in token of his esteem.

Guthrie was twice married, first to Margaret Paterson, daughter of the Lieutenant-Governor of Prince Edward's Island. He left behind him a son, Charles Guthrie, who became Assistant-Surgeon to the Westminster Hospital in 1843.

The brilliancy of Guthrie's achievements during the long and bloody war in the Peninsula made him known throughout the civilised world, for he revolutionised military surgery and smoothed the way for the more rational surgical treatment of to-day. But this must not be allowed to eclipse his acts of almost equal value done in times of peace. It was Guthrie who, by his constant activity and zeal, helped to raise the profession and who gained for the members of the college many privileges they enjoy to-day.

We who are so intimately connected with the Westminster Hospital especially owe to him a debt of gratitude, for, if he did not actually found the medical school, he was one of its greatest benefactors and the prime mover of its establishment on its present basis.

NOTES ON THE GERMICIDAL ACTION OF THE BLOOD, IMMUNITY, AND PARASITIC PROTOZOA.

By Dr. HEBB.

In the sixth volume of these reports I let off some *obiter dicta* about the germicidal action of the blood. These remarks were written three years ago. Since then the strife between the plasmatists—or, as they are more frequently denominated, humoralists—and the phagocytists has been going on, and several interesting developments have arisen. One of these is almost amusing. The causa teterrima belli was a tadpole's tail. The leader of the phagocytists, and the originator of the cult, stated (Annales de l'Institut Pasteur, vi., 92, 1) that the tadpole's tail was eaten away by phagocytes. There was nothing surprising about this. But it was laid down that these phagocytes were derived from the sarcoplasm, and from the muscle nuclei of cells in the tail itself. Hence the tail eat itself up. When these phagocytes had eaten enough of themselves, they wandered off to other parts, where, under favourable circumstances, they could be seen with tit-bits of the contractile substance of muscle inside them.

Now Dr. A. Looss had also been investigating the cause of the disappearance of the tadpole's tail, and he concluded that it was absorbed by the action of the body juices, and that the observed appearances were those of degeneration. Into the latter's views we need not enter, but it was certainly owing to his remarks that we are indebted for now knowing that Professor Metschnikoff "persuadé dès le début de mes études phagocytologiques de la variabilité des phagocytes, il ne m'est jamais arrivé de les identifier avec des leucocytes."

It had been quite generally understood that by a phagocyte

was meant a wandering mesodermic cell. This would include the amœboid connective tissue cells, as well as the mobile lymph and blood corpuscles. The phagocyte had been further sub-divided into microphages and macrophages, according as they were small or large; the former being almost entirely identical with the mobile lymph and blood corpuscles, while the latter were mainly derived from fixed connective tissue elements.

The world at large had been brooding in soft contentment for nigh ten years, pleasingly soothed with the delightful notion that they were possessed of myriads of ever nascent protectors against disease. They were absolutely specific and efficacious. Lovely pictures in many colours served to illustrate pathological literature; pictures of unfortunate little vegetables stained blue or red being picked up, enveloped, digested, and assimilated by contrast stained little masses of animal protoplasm. It was true because the master had said it, and besides all that it was in print.

But that faith has been rudely shaken. Instead of possessing a well-trained little army, ready to go anywhere and fight anything at a moment's notice, it would seem that the animal economy is made up of a mass of phagocytes; that every cell is a phagocyte; that there is no division of labour; that there is no specific cell defence. For if the muscle cells of a tadpole's tail can turn themselves into phagocytes, there does not appear to be any valid reason why any other cell in the animal economy should not act in a similar way.

The little controversy between Dr. Looss and Professor Metschnikoff is also illustrative of the amenities of scientific discussion. You should not as a rule call your adversary a liar (unless you are driven to your wits end for repartee, and even then you must accompany this by the offer to take the case into a law court), but you may always affirm that you have never changed your opinion in your life, never held any other views about a phagocyte, that your adversary's preparations are unsatisfactory, and the inferences drawn by him are infantile and erroneous. This is just the sort of thing that happened, and it was only natural on the part of Dr. Looss to reply.

His reply took the form of comparing the earlier and later statements of Metschnikoff on phagocytes by placing them in

parallel columns and side by side (Centralbl. f. Bakteriol. u. Parasitenk, xii., 1892, p. 514).

The earlier statement as to the nature of phagocytes (Arb. Zool. Institut. Wien, v., 83; Med. Biol. Centralbl., iii., 1883-84, p. 560) is that wandering mesodermic cells, *i.e.*, amœboid connective tissue cells and mobile lymph and blood corpuscles act as phagocytes, while the later development is "Il ne me'st jamais arrivé de les identifier (sc. les phagocytes) avec des leucocytes."

With regard to the atrophy of muscle, it is stated (Biol. Centralbl., iii., p. 561) that round about certain caudal muscles amœboid cells accumulate at the beginning of the metamorphosis, while later (Annales de l'Institut Pasteur, vi., p. 7) he holds that neither in the muscle itself nor in its neighbourhood is an accumulation of leucocytes ever seen.

And again (Biol. Centralbl., iii., p. 561), the amœboid cells gradually envelope whole pieces of the primitive bundles and completely devour them; but eight years later (Annales de l'Institut Pasteur, vi., p. 5) the whole of the muscle fibre is transformed into a mass of phagocytes.

If the master had never identified the phagocyte with the leucocyte, why have allowed his disciples to stump the country on this platform? For this is what they have been doing, see the literature of phagocytosis *passim.*

The germicidal action of the plasma also has ardent adherents. That this should be the case is not at all wonderful, considering that it is almost an invariable rule in human affairs that if the scientist X in the country A states that a certain collection of facts observed by him warrant the conclusion, say O, for the scientist Y in the country B, after repeating the experiments in the manner laid down by X, not only to deny the accuracy of the facts, but the propriety of the inference. Y also proceeds to formulate his own hypothesis, say P, usually just the opposite of X's. And this is just what has been happening for some years with regard to the germicidal action of the blood. Now, no one is able to deny that animal cells do take up foreign particles, and that, too, even if the latter are alive. The cells are able to do this

because they are alive. It is a vital action. On this followed the phagocytic theory of immunity.

That was quite sufficient. Up rose the plasmatist and said, What about the body juices? These possess a germicidal action, and, to go no further than the serum, just observe how these virulent bacteria are decimated, sometimes annihilated, by the action of the serum, even under artificial conditions. Much greater, therefore, probably, is the germicidal action in the body. It is perfectly certain that this action is a vital one, for if the serum be heated up to 53° the power of destroying bacteria is lost. It therefore must be a vital and ferment-like function, and to it are to be ascribed those results which you, the phagocytists, claim as being due to the action of certain cell elements. If cells are able to tackle microbes, it is only when the latter are in a paralysed or dead condition.

Is it so? Is this action a specific property of blood considered as blood, or is this extra-vascular bactericidal action a merely physico-chemical process?

The obviously weak part of the position of the humoralists lies in their dependence on experiments made almost entirely under very artificial conditions. It is all very well to say that blood serum kills so many bacteria in vitro, but it is quite another thing to be able to say therefore this shows what a lethal action the living blood plasma must possess. In the first place, it was objected that the germicidal action in vitro must be attributed to an unaccustomedness on the part of the micro-organisms to their new environment; it was said that the change was too sudden, and it was pointed out that however strong the body juices might be in bactericidal power, that the microbes would, if allowed to gradually get used to their new surroundings, thrive quite well; they would become inured to the climate. For example, aqueous humour may be used as a suitable cultivation medium for anthrax, and also used to demonstrate the germicidal action of the body juices (Kionka. Centralbl. f. Bakteriol. u. Parasitenk, xii., 321; de Christmas, Annales de l'Institut Pasteur, v.; Metschnikoff, Journal of Pathology and Bact., i., 1892, p. 13).

But the greatest blow the doctrine of the vital action of the plasma has received is at the hands of Emmerich and three fellow-workers, who, in a series of elaborate experiments on the

germicidal action of the blood, find that it is a chemical and not a vital phenomenon, and directly associated with the alkalinity of the fluid (Centralbl. f. Bakteriol. u. Parasitenk, xii., 1892, pp. 364, 417, 449). The serum proteids were obtained pure by chemical separation, *e.g.*, precipitation with alcohol, filtration, drying. After having been re-dissolved and made alkalin, the germicidal property was found to be restored. This conclusion accords with the observations made by Fodor, who found that there is a direct connexion between the alkalinity of the blood and its germicidal action (see Westminster Hospital Reports, vi., 84).

To think that the germicidal action of the serum, and therefore of the plasma, is after all a common chemical reaction, the result of the mere presence of an alkalin inorganic substance, is, indeed, destructive of faith, hope, charity, and almost every Christian virtue.

Ichabod!

The glory of the bactericidal action of the plasma was, however, only under a cloud for a week or two. The distinguished chief of the humoralist party, Prof. H. Buchner, summarily disposed of the chemical pretensions (Centralbl. f. Bakteriol. u. Parasitenk, xii., 1892, p. 855) by showing how the performers of these irreligious rites had gone astray. The duration of their experiments was only three hours, but if they had continued them for two hours more the bactericidal prowess of the plasma would have been vindicated. Had this refutation not come promptly to hand I should have been deeply disappointed, and now I am anxiously awaiting the counter-experiments.

In this connexion it may be worth noting how Prof. Buchner states his case. After alluding to the fact that when normal blood serum is heated up to 55° it loses its bactericidal influence and becomes inactive, he goes on to say that three hypotheses as to the changes which have occurred in the blood serum are conceivable. There is a disturbance in the micellary arrangement of the unchanged chemical molecules; or there is some alteration affecting the chemical molecules alone, the micellary arrangement remaining unaffected; or, thirdly, a simultaneous change occurs in both directions. I allude to this because, though bactericidal influence of blood plasma sounds sonorous

enough, its position must necessarily be more commanding after this scientific exegesis.

But phagocytosis and humoralism are not the only hypotheses put forward to explain immunity. During the past two or three years a third explanation of why an animal is more or less insusceptible of a disease, of why when an animal has successfully combated some disorder it is little or not at all liable to a recurrence of the malady, has been offered, and like the two other theories, commands devoted adherents.

This view is that the body is or becomes possessed of certain substances manufactured for protective purposes. These substances neutralize the toxic influence of the bacteria and the products of their metabolism. They are denominated antitoxins, antibiotics, alexins, defensive proteids, &c., and have been discovered by Buchner, Hankin, Ogata, Tizzoni and Cattani, the Klemperers, and others. These neutralizing substances are supposed to be albuminous bodies with a ferment action, and have been found for diphtheria, tetanus, pneumonia, anthrax, &c. Some of the observers, while claiming that their protégé is a globulin, a proteid soluble in water, insoluble in alcohol, and nondialysable, declare that their own peculiar protective has no connexion with any other in the same line of business; and at the great Palaver on phagocytosis, held at the Pathological Society, the suggestion that a certain defensive proteid was nothing but the tissue fibrinogen of Woolridge was scornfully scouted by its isolater. This class of defensive proteid seems to be inherent in the body, existing chiefly in the spleen but also in the blood, and to become more copious and mature with age. Hence it would appear that this kind of protective would tend to become more powerful as the result of inheritance, and might eventually eliminate disease, unless, as he probably would, the microbe kept on devising new forms of vital activity.

In another class must be placed the proteid body discovered by the Klemperers. Experimenting with the pneumonia coccus they found this micro-organism produced a certain toxin, pneumotoxin, and that this in its turn was the cause of the generation of another proteid of opposite tendency, anti-pneumotoxin. Pneumotoxin cuts its own throat, so to speak, by

causing the development within the body of a neutralising agent. The efficacy of the anti-pneumotoxin does not unfortunately last for ever, and a fatal pneumonia is presumably due to some carelessness or imprudence on the part of the microbes in not sufficiently stimulating the organism to produce enough of the antidote.

But, however, they act, and whatever they are, these protectives are only good for one disease. They do not claim to be general prophylactics, and I think this is distinctly unfortunate. Because being only good for one disease, and their protective period being undetermined to render a person moderately immune, *i.e.*, protected against even a percentage of infectious diseases, would probably result in a surfeit of antitoxins. What constitution could bear the simultaneous presence of twenty such health restorers? I do not think the antidotal theory has made out a valid general case, and rather than submit to the full consequences of such a doctrine would I join the Salvation Army and beat a drum.

Accepting phagocytosis, having aided in making known the bactericidal action of the plasma, and being partially, at least, responsible for the invention of alexins or defensive proteids, Hankin has recently gone further and attempted to reconcile these conflicting hypotheses, by the ingenious suggestion that the eosinophilous granules in certain leucocytes are the mother substance of alexins. These leucocytes are compared to those cells in the gastric mucosa which secrete and excrete pepsin and the eosinophilous granules to the zymogenic granules.

Thus these granule-leucocytes are wandering glands, and besides exercising phagocytic functions, secrete and excrete defensive proteids with ferment action and bactericidal power (see Centralbl. f. Bakteriol. u. Parasitenk, xii., 1892, pp. 777 and 809, 6 figs.).

At the first inspection I regarded this ingenious suggestion, one rendered all the more plausible from the support of numerous experiments, almost with enthusiasm. Perchance now the vendetta of immunity would cease simply from inanition, there was nothing more to be said, nothing more to be done.

This vision of peace was, however, of short duration; it was followed by a period of doubt, and this by the conviction that the probable result would be to add fuel to the fire. It would be too much to expect the lion and the lamb to lie down together with a little child to lead them.

In the long dispute as to the why and wherefore of immunity the microbicidal action of the blood has overshadowed and thrown into the background many important and interesting phases of the question. For example, what have the tissues generally got to say on the question, what is their action with regard to immunity? Nor is it quite clear that everybody means the same thing by immunity. Immunity may be natural or acquired. Natural immunity means that an individual or race are more or less resistant to or insusceptible of a certain disease or diseases. But the expression natural immunity has only a relative value, for absolute immunity is rare, though perhaps not unknown. I speak of disease contracted by the ordinary modes and channels of infection and contagion, and do not include disease imparted artificially, for it may be doubted if absolute immunity be possible, if a sufficiently large dose of a poison be administered.

The division into natural and acquired immunity is, though conventional and artificial, convenient. According to some, the more we look into the question the more it becomes one which would be better expressed by relative resistance, so that natural immunity passes gradually into acquired immunity. Just compare a series of cases, say in a scarlet fever epidemic. The members of a family are exposed to the same source of contagion, and under precisely similar conditions. A is quite unaffected; B has slight malaise, but exhibits no subsequent phenomena; C takes the fever mildly; D has it badly; E dies of it. A and B should be regarded as instances of natural immunity, though their degree of resistance is different. C and D would come in the category of acquired immunity. Their resistance is also of different degree. E's case would be best formulated as one of negative immunity. His organism has feeble or no resistance. But that is not the whole, for it does not at all follow that because A and B are immune at a certain

period that they will always be so. Indeed, they might be in positions similar to those of D and E.

Acquired immunity is the result of having successfully passed through a certain kind of malady. This too is only relative, for more than one attack of most of those disorders labelled in the text books "one attack confirms immunity" is recorded. And acquired immunity may be imparted artificially, as in the "vaccinations," *e.g.*, vaccinia for variola, hydrophobia, tetanus, cholera.

When acquired immunity is spoken of it must be remembered that the expression only holds good for certain diseases. That is to say, it is well-nigh impossible to pass successfully through some maladies, *e.g.*, tuberculosis, for if such a disorder gain a foothold it is almost impossible to cast it out. Indeed, with regard to this particular disease, it must be admitted that a local infection actually predisposes to a general one, and in the same category must be placed leprosy, malaria, cancer.

But acquired immunity may be admitted for variola, scarlet fever, measles, syphilis, pertussis, typhus. While between these two classes is a transition list, including influenza, pneumonia, vaccinia, relapsing fever, diphtheria, enteric fever, cholera, erysipelas, dysentery, not to mention glanders, hydrophobia, cerebro-spinal fever, plague, pyæmia, dengue, tetanus. Some of these, such as glanders, hydrophobia, tetanus, cholera, are scarcely at all tolerated, and the question of immunity hardly comes in their cases. Some are tolerated, and though it would seem that there is a period of protection, this period is a short one; indeed, so short and inefficacious, that it would be better to say one attack actually predisposes, *e.g.*, erysipelas, tonsillitis, dysentery, pneumonia. In the case of relapsing fever and of enteric fever it would seem that the first bout is insufficient to protect even for a short time. Otherwise why the relapses?

A consideration of the above-mentioned diseases from many points of view, one of which is a clinical one (to drag in clinical experience and knowledge of common every-day matter of fact is weakness from the professional bacteriologists point of view), leads to an inference about which there is some *a priori* probability. For certain diseases, *e.g.*, tuberculosis, a vaccinating product derived from tubercle bacilli is little likely to be obtained. It seems more probable that the metabolic products

of this bacillus would favour its development. And to pursue the inference to its logical conclusion, it might be hoped that bacteriology would offer the advantages of protection for syphilis, measles, scarlet fever. As yet it has not done so, but contrary to what might have been expected, it has been successful for hydrophobia and tetanus. About this apparent discrepancy there is really nothing strange, for as I have elsewhere pointed out, two and two do not not necessarily make four in medicine, and besides, as Mrs. Glass observed, you must first catch your hare.

Artificially acquired immunity may be imparted either by inoculation with a specific microbe in an attenuated condition, or by the products of its metabolism. These are the usual modes. But can it be that one microbe X is able to confer immunity against the disease set up by another A? Every one will admit the converse, and though no one would advance it as an argument it is sufficient to raise a suspicion. If, for example, one microbe have lowered the general resisting power of the organism some other microbe quite easily vanquishes it, *e.g.*, pneumonia on phthisis, phthisis on pneumonia. Now could it be that certain poisons render the organism in general more resistant to other poisons; for example, *pace* Badcock, Ceely, King, Hime, and almost all the world, that vaccinia is not modified variola, but only has the power of modifying the blood and tissues of the body to such an extent as to protect against variola.

I am always certain that when I have read a series of bacteriological experiments, proving to absolute demonstration that what their author states is a fact, I say I am always certain that I shall soon meet a complete refutation of those experiments, coupled with a conclusion that the second author's experiments are not only to be relied on, but pointing out the way the first writer had been led astray. I say this to hint that the experiments which have proved to absolute (experimental) demonstration that vaccinia is modified variola may be upset. For the great suspicion in my mind is that if vaccinia were modified variola, then it would have broken out at least once into variola. But no such case has been recorded, and I shall keep my opinion until I have seen something which will obliterate it.

Mind I am not arguing against vaccination, I have been

vaccinated several times, twice or thrice of my own free will; what I am trying to show is that when a microbe is taken from its natural environment and modified by enforced retirement to a foreign climate, that, notwithstanding a long period of repression, wherein its natural instincts and behaviour have been modified or suppressed or become quiescent, yet on the slightest provocation, with the minimum of advantage, with a trace of its natural environment, that microbe will develope its peculiar characteristics, and will show that it is the same old microbe for a' that.

Surely this would have happened over and over again among the many millions of cases of vaccination. The vaccinia microbe must have had many a chance of developing a variolous condition had it been a repressed modified variola. Look at the experiments made for the purpose of depriving micro-organisms of certain functions, *e.g.*, the chromogenic and sporogenic. The micro-organisms may be cultivated for generations with modified functions, but only under certain restricted conditions. Give them the slightest chance, and the suppressed function returns.*

So the question of immunity is much more intricate than appears at first sight. Most people are inclined to regard it from the "one attack confers immunity" point of view, a dogma to which they have become indissolubly united, like a married couple, for better, for worse, and cling to it like faith clings.

> "For faith, fanatic faith, once wedded fast
> To some dear falsehood hugs it to the last."
>
> *Lalla Rookh.*

Some are led by the result of vaccinations against variola, against anthrax, cholera, tetanus, and hydrophobia into assuming that all infectious and contagious diseases work on the same

* I am not arguing a case for or against vaccination, I am simply stating a point which occurred to me. In order to make assurance doubly sure, I wrote to Prof. Crookshank to ask him if he had ever heard of a case of variola arising from vaccinia. The numerous hostile critics of his work on vaccination would, had they been able, certainly have hurled one instance at the author of a heterodox creed. To quote his own words, "Vaccinia has never been transformed into small-pox, and that is the great argument against the theory of vaccinia being modified small-pox. On the other hand, the inoculation of lymph from cow-pox, or from sheep-pox, or from cattle-plague, or from human small-pox, produces certain phenomena which we call 'Vaccination.' In other words, these different vesicular diseases will produce locally by inoculation similar phenomena, but this is no proof of identity."

lines, and yet it is perfectly obvious they do not. For some diseases a tolerance acquired naturally or artificially may obtain. For others, as may be learned from clinical experience and the study of morbid anatomy (practices ignored and despised by the omniscient neopathologist who is satisfied that a little gelatine and a guinea-pig are all that are necessary for acquiring an intimate knowledge of disease in all its aspects), it is probable that no such protection will be afforded on vaccinating lines.

Then regard the subject from quite another point of view. Just imagine the social results which would ensue if microbiology were able to confer immunity against gonorrhœa and syphilis. Certificates of successful vaccination would be required by the high contracting parties and probably framed for exhibition on the walls or in the windows like the license of the Apothecaries' or the diploma of the Royal College of Surgeons.

But to revert to the position from which we started. Let us put the case from another point of view, and ask if there be any connexion between natural and acquired immunity beyond the fact of a resistance. It would seem that most people imagine there is, just as in the instance of the scarlet fever cases alluded to above. At present, however, no satisfactory proof exists that natural and acquired immunity are fundamentally the same. However great natural resistance may be, it is never so great, as far as some particular diseases are concerned, say scarlet fever, variola, as the condition of acquired immunity. And though an individual organism may be resistant to one disorder it is not so to others. Nor does the protection acquired for one disease promote a general resistance. Quite the contrary, it will lower it for many people, and the lowering tendency is much more marked for some diseases than for others. Yes, indeed, there are many features and phases of immunity which, at present, are ill understood, and the whole question is obscured from the absence of anything like an accurate definition of what is meant by immunity.

In considering the subject it would be well to remember that many roads lead to Rome, and that while natural, acquired, and conferred immunity may end in the same result, it does not at all follow that they lead thereto by the same route or even by parallel ones.

Of the three an immunity conferred artificially, sometimes by

the products of the organism of the disease, sometimes by the products of the organism of other diseases, is the most abstruse, and chiefly because it opens up immediately the question of why if an antidote derived from the microbe A is capable of conferring an immunity even for a limited period only or of neutralising its own work, why should not similar antidotes from all other micro-organisms be obtainable, when as a matter of fact the contrary is the case?

The germicidal action of the blood may be interesting, and the general bearings of immunity may be important, but during the past twelve months or so there has been a partial eclipse of both, owing to the results of the numerous investigations as to the presence of parasitic protozoa in morbid conditions and products, and their obvious relation to cancer and malaria. It need hardly be pointed out that these little animals have something to say in the immunity question; indeed, with regard to cancer, the family and individual susceptibility or lessened resistance is as notorious as the racial resistance to malaria.

But what is that relation? How has it been traced? Has it any foundation; and if so, of what sort? The superiority of man over lower animals, not to mention vegetables, his egotism, fostered by religion and nurtured by centuries of ignorance, induced him to believe that he was in all respects different from other forms of life; and some must have received a shock when they awakened to the knowledge that the body, endowed with a mind and a soul, was not materially different from the organism of a dog. Many cherished the belief that disease in the lower animals was of a different nature from that affecting the human form divine. It was no doubt distressing to discover that we are indebted to dogs and pigs for being preyed on by certain parasitic entozoa. The progress of this knowledge was slow, and is practically limited to our own times. Comparisons began to be made between the normal structures and functions of different animals. These comparisons were extended to disease-conditions, and the number of collected facts is now alarming from their multitude. It will be quite sufficient to allude merely to investigations relative to cancer and malaria.

Perhaps no disease, except insanity, has excited so much

interest as cancer, and all sorts of philosophical speculations as to its ætiology have been indulged in. Only a few years back if any one had suggested that cancer originated in a manner analogous to that of suppuration, he would have been deemed guilty of professional calumny, or declared to be suffering from softening of the brain. Yet such is the tendency of recent observations.

The ball was set rolling in 1874, when it was shown that there was some connexion between eczema of the nipple and carcinoma of the breast. The next step came from Darier, who, working under Malassez, claimed to have demonstrated in the epithelial cells, scraped from an eczematous nipple, intra-cellular bodies bearing much resemblance to sporozoa (C.R. Soc. Biol., Paris, 1889, vol. i., p. 243).

After this, things went on apace, and the psorospermosis of rabbits was constantly appealed to to support a theory manufactured out of a few facts. The villous appearance of the bile ducts in a liver affected with coccidiosis was found to present the greatest analogies to villous growths and gland-like neoplasms in the human subject. But no coccidia were observed in the adenoma-carcinoma of man.

It is quite unnecessary to complicate matters by discussing the claims of the vegetable pretenders to the throne of cancer. They have all retired into a well-merited oblivion.

But other independent observations were still being made, and in some of these (Nils Sjöbring), bodies were shown inside cells. These observations were soon confirmed from numerous quarters, among which may be mentioned Sawtschenko, Podwyssozki, Soudakewitsch, Foà, Ruffer, Burchhardt, and others (Fortschr. d. Medicin, 1890, No. 14. Centralbl. f. Bakteriol. u. Parasitenk, xi., 1892, p. 493 et. seq.; xii., 1892, p. 17; xii., 1892, p. 185. Annales de l'Institut Pasteur, 1892, p. 145. Virchow's Archiv, cxxxi., p. 121). Most of these observers depict clearly enough in their illustrations intra-cellular bodies, one or more in number, mostly spherical, with or without a definite limiting membrane and certain contents. The contents may fill the whole parasitic body, may be heaped up centrally, or arranged in radiating lines. In size, the bodies vary considerably. They stain differently from the tissue-cell and its nucleus. Their presence in the cell causes the latter to hypertrophy, to become

a giant cell in fact, with one or more nuclei. In my own specimens, for which the foregoing description holds true, most, but not all of the giant cells are mononucleated. The nucleus is pushed aside by the cuckoo-like guest, and may be flattened out by the latter along the border of the cell. Bodies resembling those within the cells are to be found outside cells, between the cells, quite free.

I quite believe that these things are so and that they are what they seem. I have seen them myself. But what of that. It doesn't follow that because you can see a thing you know what it is, or even if you do that you know all about it. I know a cow and a lion when I see them, but my knowledge of these animals scarcely goes beyond their recognition.

Most recent observers are extremely careful to state that the tissue must be prepared and stained in a peculiar manner; but about this I have considerable doubt, for I know that the various observers recommend different methods of fixation and staining, and that these intra-cellular bodies were observed fifty years ago, when microscopal technique was just being born (Virchow's Archiv, vols. i., ii., iii.; Beale's Microscope in Medicine, plates 73, 74). Even then these appearances were known, and it was the explanation only that was different. They were supposed to represent an endogenous cell-formation, or some phase of cell-degeneration.

But the perfecting of the microscope, the advances in its technique, the progress in bacteriology, and the increasing knowledge of the diseases of animals, enabled observers to take wider views. It was seen that "malignant" disease presented striking analogies to, say, syphilis, tuberculosis, pyæmia, and it was only the too profound respect for authority that kept the constitutional theory on its legs. It was the secondary deposit that still bothered them. The heterologous neoplasm was a stumbling block. The embryonic theory was *so* scientific. The dogma of the trilaminated blastoderm explained everything. What more natural than that a cell or two should inadvertently get tucked in during the process of development, and having remained in a quiescent though viable condition, retaining all its specific potentiality, should, after a period, start a rudimentary sort of organism within an organism? It was all very interesting and plausible, and confusing.

Yet, though there is practically no difference between the secondary abscess in the lung in pyæmia and the secondary deposits in the liver after cancerous stricture of the intestine, the very look of the gland-like structure of the hepatic deposit is enough to make any one satisfied with a constitutional theory.

How could this adenoma-carcinoma be constructed in liver tissue merely as the result of the fascinating influence of some parasitic protozoon?

Even when it was admitted that secondary deposits were embolic, it was difficult to explain why the colonising cell should possess constructive power. For the secondary deposit grows, and not unfrequently builds up as well. Why should they possess this building and architectural power, when the normal tissues are devoid of it. The latter are merely endowed with the power of patching themselves up. They can repeat themselves and continue their function for a series of years, but that is about all.

Take again the case of a squamous epithelioma starting first of all from some deep-lying lymphatic glands. I mean where there was no question of the skin or mucosa having been primarily affected. Such instances would be pointed to as conclusive evidence of a constitutional diathesis and of the embryonic hypothesis.*

* After rising from a perusal of works on morbid anatomy and histology, the reader feels satisfied that there is a sharp line of demarcation between "inflammatory" and "cancerous" growths; that even if there be a clinical or post-mortem examination doubt these nebulous conditions will be dissipated by a microscopical investigation. Alas! when he comes to put this knowledge into practice he finds that the haziness has now become a thick fog, that what doubt he had before has now become inspissated, until finally his condition is as lamentable as that of a fly in a treacle pot. Of course I am speaking here of the "sincere and humble striver after Truth," and not of the pathological 'Arry with robust and dogmatic mind who has no intellectual difficulties about promulgating any dogma. These difficulties chiefly arise from the fact that malignant neoplasms may present appearances indistinguishable from those of inflammatory deposits; that it is not unfrequent to find that the "secondary" cancer is of different histological aspect from the primary growth; that of malignant neoplasms, carcinoma and sarcoma are connected by insensible gradations; that frequently it becomes impossible to decide from merely inspecting preparations whether the appearances are those of inflammation, of a transient departure from the normal, of a trivial hypertrophy, or are those of health itself. I would suggest that some of the transitions, now lumped either with cancer or with inflammation merely according to taste, might for convenience form a separate and intermediate class and be termed "Irritation" growths, the expression having a histological as well as a clinical value. I daresay most of this will appear heterodox, but if any desire to appraise its value, let him send his first doubtful case to half-a-dozen different and distinguished histologists and compare their opinions.

Perhaps after all the constitutional theory may make a good fight of it and die hard; but about the fact that in some kinds of malignant growths intra and extra-cellular bodies, bodies foreign to the tissues of the host, may be demonstrated is certain. They were figured and discussed fifty years ago, and that is a proof that they may may be demonstrated without any special technical preparation. In some cases they have been demonstrated apparently with the aid of some old Falernian, or by the co-operation of a powerful and "scientific imagination." They have been demonstrated in some cases of chronic inflammatory growths. And so to draw the conclusion that they are related to cancer as cause is to effect, is a little previous, and certainly not justifiable in the present state of our knowledge. We may, however, go as far as admitting a commensalism or symbiosis. The difficulty of the subject becomes all the greater the more closely it is examined. Let us admit for the sake of argument the presence in some kinds of diseased tissues of little unicellular animals. But does their presence necessarily imply an essentially pathogenic influence eventually destructive of the host? Is their parasitism only potentially noxious, requiring some further deciding factor other than their mere presence for the development of the disease? or are they merely harmless guests taking up their abode in the disease-mass simply because it is diseased, and therefore forms a suitable nidus for them? In what way are they pathogenic? What is the nature of their pathology? Are they harmful by their direct action on the infected tissues, the latter becoming so altered by the irritation as to render them not only unfit for, but even noxious to, the organism, or is it from the absorption of the products of the metabolism of the parasites, or is it by a combination of both?

And assuming that these bodies are parasitic protozoa, there need be no difficulty about accepting (and in its fullest sense) the view that they have a "toxic" as well as an "irritant" action, general as well as local; for there is no more reason why the secretions and excretions of a unicellular animal organism should not be poisonous to its host just as those of a vegetable parasite are. Nor need the occasional likeness between the parasite and the host excite incredulity, for that one animal cell should resemble another animal cell, though the

one be the entire individual and the other merely a myriadth part of a highly complex extremely specialised whole, may be a stumbling-block to some, yet I don't think it need cause any prolonged wonderment.

The hæmatozoa of malaria need but a passing notice. Their position is assured. All that has been done since they were first described has been to verify and extend this knowledge. The facts remain pretty much as they were three years ago, though the presence of parasitic hæmatozoa has been made out in the blood of numerous birds, reptiles, and in animals. A "malarial" origin is assigned to them, partly from their appearance, and partly from their geographical situation. One observer, Danilewsky, finds that birds suffer not only from chronic, but acute malaria, and by some a malarial origin is attributed to hæmo-globinuria. In Texas fever, a disease affecting cattle, hæmo-globinuria is a prominent symptom, and an examination of the blood shows that there is great destruction of the red corpuscles, the result of a parasite very probably, for Th. Smith describes an endo-globular organism, which he has demonstrated not only in fresh blood, but also in prepared specimens. Hæmo-globinuria of cattle is endemic in parts of Roumania, though according to Babes this is a bacterial disease. My reason for going out of my way to allude to malaria in connexion with hæmo-globinuria is partly as a suggestion to examine fresh blood in cases of hæmo-globinuria, and partly to indicate that the cause of this disease may be less simple numerically than is usually supposed. Cases of paroxysmal hæmo-globinuria are met with in England and on the West Coast of Africa. Black-water fever is an example.

With regard to the appearances described by different observers it may be said that there is unanimity. From this point, however, they diverge into two chief streams, one tending to the opinion that the malaria parasite is a polymorphic organism, the other inclining to differentiate them into varieties, species, genera, partly for morphological, partly for symptomatic reasons.

Some observers boldly state that the malaria parasites belong to the class sporozoa, but the reason for this seems a little vague, though the argument is essentially "scientific." For example,

the formation of falciform bodies is a well-known phase of some easily observed sporozoa. Some of the hæmatozoa of malaria are falciform. Therefore they are sporozoa.—Q. E. D.

Much information on the protozoa may be obtained by consulting—

Balbiani ...	...	Leçons sur les Sporozoaires.
Pfeiffer, L.	...	Die Protozoen als Krankheitserreger.
Lavéran ...	...	Traité des fièvres palustres, 2nd edition.
Lankester ...	...	Article "Protozoa" (Encyclop. "Britan.," 9th edition).

and on bacteria, the Manual of Bacteriology, by G. Sternberg, Dep. Surg. Gen., U.S.A.

To those who prefer their literature of the animal and vegetable parasites in a concise form and English garb to taking it diluted and more or less disguised by unnecessary continentalisms, the Journal of the Royal Microscopical Society may be recommended.

TWO CASES OF MALIGNANT JAUNDICE, WITH REMARKS.

By Dr. HEBB.

By malignant jaundice I understand a disease in which the chief and essential phenomena are jaundice and cerebral disturbances ending in coma and accompanied by certain well-marked changes in the liver.

Malignant jaundice is perhaps better known as acute yellow atrophy, and has received various other denominations according to the prominence of certain symptoms, *e.g.*, typhoid jaundice, hæmorrhagic jaundice, diffuse parenchymatous hepatitis, Irish yellow fever. (It is very probable that this last is merely relapsing or bilious remittent fever, of which jaundice is a frequent accompaniment.) As may be gathered from the nomenclature, stress is usually laid on other points besides the three essential characters I have attributed to it, most attention being directed to the liver itself as the principal source of the disease.

It is a parenchymatous inflammation; the liver changes represent a condition of sub-inflammation; it is the result of an inflammatory state of the organ, and so on.

It is said to be more frequent in women, most prevalent in the third decade; to be associated with depressing condition of mind and body, *e.g.*, alcoholism, syphilis, pregnancy, fevers. Its course is rapid and its termination fatal.

The disease may be first noticed from the jaundice alone, or its onset may be accompanied by abdominal tenderness or pain, with or without distension. Vomiting may be an early symptom, or may supervene only towards the last. Drowsiness, increasing to stupor and ending in coma, appears to be invariable. The cerebral symptoms may be further augmented by headache, restlessness, photophobia, convulsions.

It is of cardinal importance that there should be no temperature. The jaundice directs attention to the vomit, the stools, the urine, the presence of hæmorrhages, and the liver itself.

The vomit may be bilious, or may be coffee-ground from admixture with blood. The stools may be acholic, or brownish, or blackish. The urine may be dark from excess of pigment, while the most constant abnormality is the presence of leucin and tyrosin, of albumen, together with a notable diminution of urea. Blood may not only stain these excretions but be extravasated into the tissues, especially the skin and mucosas.

On the size of the liver, as elicited by palpation and percussion, much stress is laid. If brought early under notice the size of the liver will be large, if late, small to disappearance.

More peremptory than the symptoms and physical signs are the statements made as to the condition of the liver found after death. It is small, flabby, wrinkled, doughy, yellow. By some reference is made to red parts more frequent in the left lobe, but an allusion to this appearance is not by any means invariable. The organ retains its shape, its surface is smooth. Its consistence is much the same throughout; it is flaccid but not friable.

Microscopical examination shows profound disorganisation of the gland tissue. The liver cells have for the most part disappeared, and in their place are found oil globules, debris, pigment granules, and leucin and tyrosin.

I think the foregoing is a fair summary of what is usually stated about "atrophic hepatitis."

The text of this discourse is that under the term yellow atrophy of the liver are included two affections which usually have in common, jaundice, cerebral disturbance, and marked anatomical alterations in the hepatic structure, and two cases which have occurred at Westminster Hospital last year will serve to form a basis for the argument, although I shall refer to other cases of malignant jaundice. The remarks will be as concise and short as the case will permit. I need scarcely point out that a collection of symptoms in connexion with organic lesions are not considered, now-a-days, sufficient to make a disease. Take, for example, the famous case of typhus and enteric fevers, which, until the days of our fathers, were compressed into one. No two diseases are more distinct in

most respects, and a smart third-year's student will glibly run off their main differences. Or turn to Bright's disease. What have the various forms of nephritis in common but albumen in the urine and organic changes in the kidney. Yet any one who goes through the history of four forms of chronic renal—a contracting, granular, mottled kidney the sequence of acute nephritis; the granular, red, firm, contracted kidney of gout and arterial degeneration; the common "large white," firm, "amyloid" kidney; the rare "large white" kidney—follows up the course of the case, compares the symptoms, and afterwards inspects their coarse and minute anatomy—can have no doubt that these are four distinct forms of chronic Bright's disease, having a different origin, progress, and result.

It is on these lines that I opine that under the term malignant jaundice are included two (probably more) distinct affections.

The macro and microscopical appearances exhibited by the livers in Cases 1 and 2 differ *toto cœlo*. That in 1 showed a firm, red moiety, the other being a soft, yellow, almost spongy mass. That in 2 was yellow, flabby, and homogeneous throughout. It was of the same consistence and of the same colour. Microscopical examination gave similar results; that is to say, the appearances in Liver 2 were the same all over, while in Liver 1 were of two distinct kinds. In Case 2 the hepatic framework was still there, but the gland element, *i.e.*, the hepatic cells, was reduced to a granular detritus. In Case 1 the firm, red portion may be called the framework of the lobule less the gland element, while the yellow, flabby portion was hepatic tissue in condition of profound disorganisation. The sections of Liver 2 were scarcely at all stainable, while the red portions of 1 reacted very well.

Thus the anatomical appearances are totally different. It would seem as if in Case 1 there had been a gradual shrinkage of a large portion of the viscus, and that the disorganisation of the rest followed *en bloc*, possibly accelerated or even induced by the same cause as produced the consolidation of the lungs, or, to put it in another way, the deparative action of the liver became unable to cope with the demands made upon it after the loss of so much of its gland element. It broke down under the stress of work laid on it. But in Case 2 the morbific action must have been exerted on the whole of the gland at the same time.

The clinical aspects of the two cases present features in common as well as marked differences. The symptoms in Case 1 had a sudden and severe onset. In Case 2 the premonitory symptoms were slight and trivial, and it was not till the last few days of life that they became ominous. It would be unfair to urge more, because nothing is accurately known of the woman's illness before she was picked up by the police. The information about her is very general. She was a prostitute and addicted to drink.

In the child's case the jaundice was first noticed about 12 days before death, though then the patient did not seem seriously ill. Taking the bronchitis as the starting point, the duration of the malady was less than 3 weeks. As far as the cases presented themselves for observation, they had three factors in common—jaundice, profound cerebral disturbance, and marked anatomical changes in the liver. And these anatomical changes were so different that I came to the conclusion that they were representative of two different hepatic affections.

The disease is a rare one, and it is only given to a few to see more than one or two cases. Considerable information must, therefore, be derived from the reports of others, and a glance at the catalogue of the library of the Surgeon-General, U.S.A., will show that the number of cases recorded is larger than might have been expected, and that the literature of this disease is fairly extensive. But I shall be satisfied with referring to a few cases which have come within my own reading.

It was laid down not so long ago (see Niemeyer) that this disease never occurred in children, but Cases 2 and 3 and West's and Goodhart's cases are examples to the contrary.

The duration of the disease after the setting in of the symptoms is said to be about 5 or 6 days, but Cayley's case lasted about 3 months, and the fact that instances of second attacks are recorded may point in the direction of exacerbation, just as much as of recurrence.

The circumstances under which the disease occurs are far from invariable, and point to different kinds of causes: thus, while most of the cases are sporadic, Hirsch gives instances of epidemics of malignant jaundice, vol. iii., sec. 117, New Syd. Soc.

The absence of fever is usually regarded as an essential point in the diagnosis, but a perusal of the actual records rather indicates a febrile onset (see Frerich's first case), and a rise of temperature, sometimes considerable, is certainly not uncommon towards the end. In some cases an enlargement of the spleen and lymphatic glands has been observed, but this is not constant.

The presence of leucin, tyrosin, and albumen in the urine, coupled with the diminution or absence of urea, are all very variable, and some of the most prominent symptoms (symptoms which might very naturally be expected), jaundice and cerebral disturbance, are occasionally absent, *e.g.*, see West's case and the third of Dreschfields. This last case was also remarkable from the gall-bladder being full of pus, and another of Dreschfield's was peculiar because the red parts were the least atrophic.

This short record shows that strictly the only constant of "malignant jaundice" is an alteration in the structure of the liver, and that this alteration is in the direction of atrophy; that the coarse and fine anatomical appearances are indicative of at least two distinct affections. In other words, the morbid anatomy is sufficient of itself to afford a basis for separating this disorder into two affections, but that the clinical aspects of the case are so various as to render correct inferences at present difficult. Yet taking my stand on the not insecure ground of morbid anatomy, I think I have made out at least a good *prima facie* case for contending that under the term malignant jaundice, *alias* yellow atrophy of the liver, are included at least two diseases, and it will not be going far out of my way to suggest that while the symptoms point always to a toxæmia they may be sometimes due to a toxinæmia, and this would receive some support from the presence of fever, enlarged spleen, lymphatic glands, and bacteria. Yet the cerebral disturbance might in great measure be due to the associated renal affection and the presence of unexcreted urea.

The morbid appearances give but little support to the supposition of an inflammatory, or even sub-inflammatory origin, though there is "some" evidence of a chronic inflammatory change in No. 1, and "some" sub-inflammatory appearances in Nos. 2 and 3.

The cases referred to are :—

West. Path. Soc. Tr., IV., vol. xxxi.	... ...	Page 116
Goodhart Path. Soc., „ xxxiii.	... ...	„ 170
Cavafy „ „ „ xxxiv.	... ...	„ 122
Cayley „ „ „ xxxiv.	... ...	„ 127
Dreschfield, Journal Anat. and Physiol., xv.	...	„ 422
„ Lancet, I., 1884	... ...	„ 606
„ Lancet, I., 1893	... ...	„ 252
Ralfe, Lancet, I., 1881	... ...	„ 780

CASE I.—Female, age 23 years, a prostitute and addicted to drink, was found, on the evening of April 8th, 1892, in the streets by the police, and lodged in the cells as being drunk and incapable. According to the police account she was able to answer questions each time she was roused, until the morning of the 9th, when, being apparently unconscious, she was brought to the hospital. On admission (under the care of Dr. Sturges) she was deeply jaundiced, was very drowsy, refused to talk, and cried out when touched; her breath smelt of alcohol; tongue furred; sordes on teeth; temperature 95°; there was no œdema of legs or feet; no evidence of palsy; and according to the notes there were no physical signs of importance in the thorax or abdomen. April 10th.—Became more comatose; breathing sterterous; no conjunctival reflex; when lifted the limbs fell heavily and without resistance as if palsied; had nine convulsions affecting the upper more than the lower limbs; being unable to swallow was fed through the nose; the liver dulness extends from 6th rib to two inches above costal margin: the fæces are acholic; the urine is deeply bile-stained; no leucin or tyrosin were found, but it is noted that "U. drawn off by catheter" contains numerous oil globules; later in the day the temperature rose to 104°; breathing became stertorous and almost entirely diaphragmatic. Died in early morning of 11th.

Post-mortem examination (vol. vii., p. 122) was made 12 hours after death.

Body well nourished; skin of a bright yellow hue; the jaundice being uniform and of equal intensity. All the tissues and juices are deeply bile-stained.

Brain 44 ozs.; membranes and nervous tissue nil. Fauces and larynx nil: the respiratory mucosa is throughout of a deep red (modified by yellow) hue, and covered with muco-

purulent fluid. Some yellowish red fluid in both pleural sacs; it is quite clear, and the pleuræ are smooth and shiny. The whole of both lower lobes and the adjacent part of the right upper lobe are consolidated; they have the naked eye appearances, partly of red, partly of grey hepatisation. The lungs generally are much engorged and œdematous. The consolidated portions are very friable, and their fracture is granular. There are no enlarged mediastinal glands.

Heart and pericardium nil. The blood is dark and fluid.

Peritoneum nil. Gastro-intestinal tract nil, except that the mucosa is injected in a few places. A probe passes easily through the papilla into the bile and pancreatic ducts. Liver 35½ ozs.; it retains its characteristic shape; it is generally of a dark reddish brown hue, though on the upper surface some yellowish areas are visible. About one-half is of firm consistence, and on section is of a brownish red colour, presenting to the naked eye the ordinary appearance of liver. The other moiety is soft, flabby, and of a bright yellow colour. Here the ordinary appearance of liver tissue are absent. Though the yellow portion is soft and flabby, there is no breaking down. It is perfectly consistent. It is apparently a degeneration, and the degenerated yellow area, sharply delimited from the firm red portion, is located more in the right than in the left lobe. The red and yellow portions form quite continuous masses, *i.e.*, there are no detached separated areas of yellow or red. Though the firm red moiety is unduly hard, the induration is not cirrhotic in character, and the surface of the viscus is quite smooth. The gall bladder contains some 1—1½ ozs. of thin dark-green bile.

The kidneys are large, capsules thick and adherent; on obvious wasting of cortex; consistence firm; colour dark purple; spleen nil; uterus large; os fissured; mucosa of a dark-brownish red hue; ovaries nil.

Microscopical examination of the lung showed that the capillaries were greatly engorged, and that the air saccules were crowded with cells, leucocytes and red corpuscles, and some very little fibrin. Adhering to almost all the cells in the air saccules (but also in a few vessels) are myriads of bacteria which stain well with logwood, but better still with Gram's method. Under moderate powers they look like cocci, but under higher they are seen to be diplo-bacilli with rounded or pointed ends.

Liver—the firm, red portion is marked by the presence of large bile ducts, by the intense hyperæmia of the lobules and by the absence of the hepatic cells. Notwithstanding the absence of the hepatic cells, the minute anatomy of the hepatic lobule is well preserved, and its structure easily made out. The periphery of the lobule is marked by the presence not only of bile ducts, but of connective tissue in excess. This is possibly to some extent a new formation, but much must be attributed to shrinkage. The lobular capillaries are filled with red corpuscles, and the central vein is large.

The soft yellow portion is characterised by general disorganisation of the liver substance. The framework of the lobule can be made out, but not with ease. The liver cells are replaced by detritus in which pigment granules are prominent, although collections of normal-looking hepatic cells are not unfrequent. The intercellular framework of the lobules in the yellow portion, though retaining its geographical position, is fluffy or woolly looking and stains badly.

The difference between the two portions may be expressed by saying that the pseudo-cirrhotic red moiety is liver substance minus the cells, while the yellow areas are hepatic tissue in condition of profound, though recent disorganisation.

CASE II.—Male. Age $2\frac{2}{12}$. Was admitted May 25th, 1892, under Dr. Donkin, for jaundice. The child was quite well up to May 18th, when it was attacked with wheezing on the chest. On May 24th was noticed to be yellow, but did not seem seriously ill. Bowels were open on morning of admission; motions brown. Has suffered from bronchitis and diarrhœa at times. Was born at full term; has had measles; no history of syphilis; on admission appeared to be a fine healthy child; there is marked jaundice. Edge of liver can be felt about $1\frac{1}{2}$ inches below costal margin, is hard and slightly tender; spleen somewhat enlarged; a few coarse moist sounds over lungs.

Remained in much the same condition for a week, the jaundice becoming rather less marked. The motions became colourless. Physical signs of slight pneumonic consolidation were made out in right thorax, and the liver diminished in size. On June 4th was very fretful. About 4 a.m. on the 5th became suddenly unconscious, convulsions came on, and these lasted until death the same evening.

The temperature ranged between normal and 100°, until the convulsions supervened, when it rose to 107·6°.

Post-mortem examination made 48 hours after death. Body well nourished, of a bright yellow hue all over; all the tissues and juices are bile-stained; post-mortem decomposition commencing; skin of abdomen green; brain 40 ozs.; membranes and nervous tissues nil; right pleura universally adherent, adhesions thin but firm; left pleura smooth, shiny, free; bronchitis. In both lungs are a few patches of lobular pneumonia; no enlarged mediastinal glands.

Heart (2 ozs.) and pericardium nil; a few sub-peritoneal petechiæ; no enlarged abdominal lymphatic glands. Liver 15¼ ozs., lies tucked up under the costal margin, is of an orange yellow hue, is very flabby and flaccid, but not wrinkled or doughy; its consistence is regular and uniform. On section the liver is perfectly homogeneous throughout, and of a uniform bright yellow colour. To the naked eye it is structurally quite normal; there is no obstruction; a probe passes easily along the bile ducts from the papilla. The gall bladder contains some 2 drachms of thin yellow bile. Spleen 3½ ozs.; consistence firm throughout; colour purple. Kidneys 4 ozs. nil; pancreas nil; the stomach contains about 7 or 8 ozs. of olive green fluid.

Microscopical examination of liver. There is no trace of ordinary liver tissue, the lobules are, however, recognisable by the presence of the hepatic veins, and the portal canals connected by fluffy-looking bands of tissue representing the intercellular hepatic vessels. There are no hepatic cells, but where they have been are debris, pigment-granules, and oil globules. In a few places there are scanty collections of round indifferent cells, chiefly located on the portal side of the lobules. The sections do not present any evidence of an antecedent hyperæmia.

Case III.—Female, age 6, was brought to Dr. Donkin (who has kindly allowed me to quote the case) for jaundice of about a week's duration, with clay-coloured stools and dark urine. Her previous history had been good, and, beyond one or two attacks of rather severe abdominal pain and a slight occasional irritability, there had been no other complaint. Physical examination revealed no abnormality in the size or condition of the liver, nor of any other organ or system, and the child looked in no wise ill. Three weeks after the onset of the jaundice

the child one day became drowsy, having been previously no worse than when seen at first, but had violent attacks of screaming, or apparently causeless passion. She became rapidly worse, with rising temperature, headache, frequent and irregular pulse, and died within 3 days in general convulsions, after several hours of coma. Nystagmus was observed before coma set in, and she vomited coffee-ground material twice during the convulsions. The lower edge of the liver could be felt below the ribs on the day before death, but the vertical dulness seemed diminished. Only the liver was allowed to be inspected post-mortem. This weighed 14½ ozs. It was flabby, doughy, with wrinkled capsule; was of a bright yellow colour and perfectly homogeneous throughout. There was no red mottling or patches.

Microscopical examination showed that the hepatic tissue was in condition of profound disorganisation. Though the framework of the lobule remained, the liver structure is barely recognisable, and the tissue scarcely at all chromoleptic. There are a few round blue staining (logwood) cells on the portal side of the lobule, and their presence is the only indication of a "sub-inflammatory" condition. There is no evidence of an antecedent hyperæmia. The hepatic cells are represented by a granular detritus or small pigmented granular masses, among which are numerous oil globules.

EIGHT CASES OF ULCERATION OF THE VERMIFORM APPENDIX.

By Dr. HEBB.

Series II.

In Volume III., p. 139, of these Reports will be found a collection of seven cases of ulceration of the Vermiform Appendix. That series began with 1880, the present ends with 1892; so that in thirteen years fifteen cases of ulceration of the Vermiform Appendix have been recorded. In the present set of eight cases the rough average in relation to fæcal concretion remains very much the same; namely, about half the number of cases. In one case the entrance to the gut was blocked, and evidently had been so for some time, and with one exception all were males. In two cases there was a history of injury, but the connexion was, in my opinion, purely accidental. In Cases I., IV., and V. the omentum was found to be adherent to the head of the colon.

The term appendicitis, which is now frequently used in surgical circles, has been objected to; on what valid grounds it is difficult to say—possibly because it is a hybrid. If so, it must be essentially English, and therefore not to be objected to. It certainly has the merit of calling attention to the fact that certain swellings, usually tender in the right iliac region, which may be associated with symptoms of intestinal obstruction and followed by peritonitis, are the result of a morbid condition of the vermiform appendix and not of the caput coli.

Case I.—Male, aged 7 years, was admitted under Dr. Sturges on December 5th, 1889, for peritonitis.

A fortnight before admission fell on his abdomen, after which complained of severe pains at bottom of his stomach. The pain was intermittent, and was up and running about till three days

before admission. On December 2nd was found lying on the floor, cold, collapsed, and complaining of great pain in abdomen. Was constantly vomiting. Was admitted in a collapsed condition; temperature subnormal; respirations 42, shallow; face drawn; surface cold and blue; abdomen distended; tongue dry, covered with brownish fur; vomited occasionally, Died 18 hours after admission. Previous history unimportant.

Post-mortem examination made 20 hours after death. (Vol. V., f. 298.) Much purulent fluid mixed with fæcal matter in peritoneal sac. Round about the head of the colon there is a diffuse abscess, but the suppuration is neither deep nor extensive. To the caput coli the transverse portion is drawn down, and the two united by thickened great omentum. At the tip of the vermiform appendix is a small ulcerated hole through which intestinal contents are escaping. Mesenteric glands much enlarged. No foreign body within appendix. Other parts and viscera nil.

CASE II.—Male, aged 20 years, was admitted January 4th, 1890, under Mr. Cowell, for peritonitis.

This patient, who was admitted in a moribund condition, died in a few hours. No history was obtainable.

Post-mortem examination was made 52 hours after death. (Vol. V., f. 321.) Much purulent fluid and yellow lymph in peritoneal sac. The vermiform appendix is fixed down to the pelvic brim. The aperture into the gut is quite occluded by fibrous, apparently cicatricial, thickening. The thickened part is tough and contracted, while the rest of the appendix is large and distended with a brownish fluid which is oozing from a ragged hole near the base. The mesenteric glands are much enlarged, soft, and hyperæmic. Other parts and viscera nil.

CASE III.—Male, aged 8 years, was admitted on February 4th, 1890, under Dr. Donkin, for peritonitis.

On February 2nd was struck on abdomen by a boy's fist. Some hours after complained of pain there, and began to vomit. Diarrhœa set in, and castor oil was administered on February 3rd; after this the bowels acted very frequently. The vomiting and diarrhœa continued. Did not feel ill at once after the blow; eat a good dinner about an hour and a-half after; was admitted

with symptoms of peritonitis; more severe and marked on right side of abdomen than on left; temperature 101° to 102°. The diarrhœa and vomiting continued; the abdominal pain and distension increasing. Died February 16th.

Post-mortem examination made 28 hours after death. (Vol. V., f. 359.) The abdomen is much distended. On opening the peritoneal sac some coils of intestine are found to be matted together and fixed so as to divide it into an abdominal and pelvic portion. The peritoneum of abdominal portion is smooth and shining, and the fluid therein quite clear. The vermiform appendix, which is about as thick as a large goose-quill, passes downwards and inwards, the tip being near the bottom of the pelvic cavity, and the rest fixed along the right side. The head of the colon is also drawn down and in. In the pelvic portion of peritoneal sac is a large collection of purulent fluid lymph and fæcal matter, while behind and rather to the right of the rectum is a ragged cavity filled with pus, shreds of tissue, and fluid fæcal matter. From this fluid was removed a cylindrical fæcal calculoid ¾-in. long and ⅜-in. in diameter. The extremity of the appendix is ulcerated through, the hole communicating with the abscess cavity. Other viscera nil.

Case IV.—Male, aged 50, was admitted on July 25th, 1890, under Dr. Donkin, for tumour in right iliac region.

Has been a lamp maker for past 20 years, previously to which was in Royal Navy; has drunk very freely of beer and spirits; had "brain" fever in 1861; has been in asylum several times for acute mania. Six weeks ago began to suffer from cough, vomiting, and diarrhœa, and one week before admission noticed a painful tender lump in right iliac region. On admission he was found to have the symptoms and physical signs of bronchitis. There was a loud systolic bruit; in the right iliac region is a fairly defined tumour which is dull on percussion and decidedly tender; there were no physical signs of peritonitis. On July 30th became suddenly collapsed; died next day; the temperature never rose above 100°.

Post-mortem examination made 24 hours after death. (Vol. VI., f. 94.) There is much pus in the peritoneal sac; the omentum is much thickened and adherent to the caput coli, and to the abdominal wall about the middle of Poupart's ligament. Behind

the head of the colon is an abscess, the pus of which is dirty-looking and offensive; the abscess is in connexion with the gut by an aperture about the size of the tip of the fore finger. The aperture is at the junction of the cœcum with vermiform appendix. The body of the appendix lies free in the abscess cavity; it is much ulcerated.

There is a small abscess on the right lung; the aortic cusps are covered with vegetations, ragged and ulcerated. The rest of the endocardium is normal. There is a caseous infarct in the spleen; the dura and pia are much thickened, and the former is adherent. Nervous tissue nil.

CASE V.—Male, aged 21 years, was admitted May 11th, 1891, under Mr. Macnamara, for peritonitis.

Was at work four days previously, but during the morning felt a "sinking" pain across abdomen. At mid-day eat a hearty meal, and returned to his work (blacksmith) in the afternoon. Later on he vomited and had to give up work. Took some opening medicine that night. Next day was able to get up but not to work. During the morning, while walking upstairs, was "doubled up" with severe abdominal pain, and had to be assisted into bed. Has never suffered from constipation. A year ago had "pleurisy and colic," and was in bed for three weeks. Since then has been quite well up to present attack. Did not strain himself at work.

On admission the abdomen was tender and distended. In the right iliac region there was a fulness which was dull on percussion. Constipation and fæcal vomiting. Abdominal section was performed, and the vermiform appendix, which was found to be perforated from ulceration, ligatured and cut off. Sank gradually and died next morning.

Post-mortem examination made thirteen hours after death. (Vol. VI., f. 283.) In the peritoneal sac is about a pint and a half of purulent fluid. The coils of intestine are matted together and to the abdominal walls by a thickish layer of soft yellow lymph. The omentum is represented by two long narrow bands, between which pass some coils of gut. The left band is anterior, and is fixed down just inside the caput coli, and the right one to the right internal inguinal ring. The vermiform appendix is represented by a ligatured stump. A fæcal calculoid, about the

size of a pea, was found in the pelvic cavity. Other parts and viscera nil.

CASE VI.—Female, aged 23 years, was admitted March 23rd, 1892, under Mr. Macnamara, for peritonitis. Was admitted in a collapsed condition. On 19th came home from work (bookfolder) owing to pain in right side of abdomen. Fainted, then took to bed. The pain continued throughout the night and during the next day. On 20th began to vomit. On 21st the abdomen began to swell. On 22nd the pain, swelling, and vomiting increased. On 23rd the vomiting became persistent, and the vomited fluid was brown, turbid, and offensive. Died next day. Had never had any serious illness, and there was no previous history of similar attacks.

Post-mortem examination made thirty-two hours after death. (Vol. VII., f. 100.) In the peritoneal sac are much greenish pus and lymph. The middle third (though nearer the base) of the vermiform appendix is ulcerated, or rather in a condition of slough, for ¾—1 inch. The sloughy condition affects the wall of appendix on its free upper aspect; the under surface is fixed down by peritoneal adhesions. Within the appendix is a fæcal calculoid, having the size and appearance of a date stone. The opening into cœcum is quite patent. Numerous small erosion ulcers of gastric mucosa, probably the result of the persistent vomiting. Other parts and viscera nil.

CASE VII.—Male, aged 70 years, was admitted April 23rd, 1892, under Dr. Sturges, with symptoms of intestinal obstruction, and a tumour in right iliac region.

On April 21st was suddenly seized with severe pain in abdomen, most marked towards right iliac region. Since 19th there has been constipation and loss of appetite, but no vomiting. Has never had any previous serious illness. On admission was found to have paralysis agitans, with which he had been affected for seven years. The abdomen was slightly distended and rigid. Below the umbilicus the abdomen was very tender, and in the right iliac region was a distinct swelling, dull on percussion and decidedly tender. Chronic bronchitis and emphysema. The temperature ranged between 98° and 100°. After admission began to vomit and became delirious. Two enemata were

administered, the second was followed by frequent action of the bowels; the vomiting ceased and the swelling in the right iliac region disappeared. Patient sank gradually and died May 1st.

Post-mortem examination made 24 hours after death. (Vol. VII., f. 132.) In the peritoneal sac is much thick green pus; the intestines are matted together by soft recent adhesions. About the middle of the vermiform appendix is an ulcerated hole through which protrudes a firm elongated scybalous mass, not sufficiently indurated to be described as a calculoid. In the right pleural sac is about half-a-pint of purulent fluid and lymph. "Ivory" fibrosis of right pleura in costo-vertebral groove, 5 by 2 inches.

CASE VIII. — Male, aged 7 years, was admitted on November 22nd, 1892, under the care of Dr. Allchin, for peritonitis. Has always had good health. Was quite well up to the evening of the 19th, when he began to vomit and complain of pain in abdomen, since which time has constantly vomited and rapidly emaciated. The bowels were open on the 18th, but not since.

On admission the face was drawn and anxious; extremities cold. Abdomen distended, tense, and tender. It is resonant all over, except in right iliac fessa, and towards right lumbar region, where the note is impaired. No definite tumour can be felt. Pulse 128, feeble. Respiration 36. Was constantly vomiting a clear yellow fluid. Gradually sank and died November 23rd.

Post-mortem examination made 18 hours after death. (Vol. VII., f. 292.) Much puro-fæculent fluid and yellow lymph in peritoneal sac. The intestines are matted together. The vermiform appendix is much elongated and distended. It lies fixed to the right side of pelvis, the tip almost touching the lowest part of the basin. The appendix is blocked by firm fæcal concretions, and shows a large ragged hole with yellow edges near the base. Other parts and viscera nil.

SARCOMA OF THE CHOROID.

By Mr. HARTRIDGE.

E. G. M.—, æt. 54, came to the Hospital on October 7th, 1892, complaining that he had gradually lost the sight of the right eye and now the left was commencing to fail. The right eye began to fail eight months ago.

He is a healthy man with no history of syphilis or other definite illness, except that he is rather subject to rheumatism.

Family history good.

R. V.—Perception of light only. Tension normal.

L. V., $\frac{6}{18}$.—Not improved. Tension normal.

Examination of the Eyes.

Right eye. External appearances normal; with the ophthalmoscope a large detachment of the retina is seen down and out; some portion of which is still transparent. There is a large tear through the upper part of the detachment, and considerable movement takes place on moving the eye quickly in different directions. Refraction of the detached portion + 12D, refraction of the disc emmetropic. No fulness of the episcleral vessels and no pain; no history of any blow.

Left eye. With focal illumination, numerous cortical striæ are visible in the lens, in other respects the eye seems normal. Refraction at the disc emmetropic.

Taking into consideration the age of the patient, the absence of any blow, and the refraction of the blind eye, it seemed wise to recommend removal of the useless organ on the chance of it being the seat of a new growth; this advice was accepted, and on October 20th the eye was removed. The patient quickly recovered from the operation.

The eyeball was placed in Müller's fluid, and after hardening it was divided in the usual way. A round tumour about 10mm. in diameter was found growing from the choroid at the posterior part of the lower and outer quadrant of the globe. It was dark in colour, and under the microscope proved to be a large-celled sarcoma; the retina over it and far beyond was detached.

A CASE OF DOUBLE OPTIC NEURO-RETINITIS AFTER INFLUENZA.

By Mr. HARTRIDGE.

J. R.—, æt. 16, came to the Westminster Hospital on October 11th, complaining of a gradual failure of vision. She gave the following history:—

In May, 1891, she had a severe attack of influenza, which kept her in bed three weeks and in the house five weeks; headache was a very prominent symptom, accompanied by sickness on one or two occasions. She recovered very slowly, but has never felt so well as before this illness.

In June, 1892, suffered from a second attack of influenza which was less severe than the previous one; was in bed two weeks and in the house three weeks. She noticed soon after this second attack that the sight of both eyes began to fail, and has continued to get worse until the present time. No history of any other illness.

The present condition of the girl, who is rather old-looking for her age, is slightly anæmic, but well nourished; she has a good appetite, clean tongue and good teeth.

Bowels regular. Catamenia normal. Urine acid sp. qr. 1018. No albumen and no sugar.

R. V. $\frac{6}{24}$ + 1D cy axis vert. = $\frac{6}{18}$.

L. V. $\frac{6}{24}$ + 1D cy axis vert. = $\frac{6}{18}$.

Pupils about 5 mm., equal and act well both to light and on convergence. Colour vision normal. Fields of vision good.

Ophthalmoscopic examination.—Right eye: disc white, borders very indistinct and rather swollen; arteries slightly diminished in size, veins tortuous, white line along some of the large vessels,

numerous white scattered patches in the macula region, no hæmorrhages.

Left eye: same condition as the right.

Remarks.—So few cases of neuro-retinitis have yet been recorded which could safely and definitely be attributed to influenza, that we are, I think, justified in assuming that it is a very rare sequel of this disease. One's first inclination is to doubt whether influenza alone is ever the real cause of neuro-retinitis, and the term influenza, even when used by the profession, includes so many variety of symptoms that it is necessary to eliminate other possible causes before arriving at the conclusion that any particular case is a sequel of influenza. Albuminuria and diabetes can easily be excluded by making an examination of the urine on three or four separate occasions, but it is much more difficult to exclude cerebral causes.

The characteristic points about the ophthalmoscopic appearances of this case would seem to be the scattered character of the spots in the retina, which show little tendency to form the stellate arrangement at the macula which is so characteristic of albuminuric retinitis. The spots are small and elongated, taking the direction of the nerve fibre layer of the retina; they are very white and reflect a good deal of light, rather suggestive of cholesterine degeneration.

Jan. 3rd, 1893.—The patient's health has much improved; she feels as well as ever she did. The vision remains the same as at the first examination, and there is no marked change in the ophthalmoscopic appearances.

CASE OF ABSCESS OF THE LUNG, WITH FOREIGN BODY IN LEFT BRONCHUS.

By Mr. J. B. BYLES.

The following case has points of clinical and pathological interest.

The patient, J. D., a boy of 4½ years of age, was admitted to St. Margaret's Ward, under Dr. Allchin, on July 12th, 1892, with the following history:—

He had had some slight cough for four months, but was otherwise quite well until two days before admission, when he was, on his return from school, taken with shivering. His mother noticed that he was short of breath, and that his cough was worse. He "rambled" that night, and the next day the symptoms were aggravated, and an eruption came out on the child's chin. He did not vomit.

On admission, the boy had a flushed face and hot, dry skin. He was dyspnœic, and his alæ nasi were in motion. His respiration was 68. His pulse was 150, and was small and quick. He had a short, hacking cough, and a furred tongue. There was a patch of herpes on the chin extending towards the under lip. On examination the left side of the chest was seen to move less than the right. Impaired percussion note, diminished breath sounds, and lessened vocal resonance and fremitus all over the left lung. At the left base to the angle of the scapula was dulness, absence of breathing, and loss of vocal fremitus. About the angle of the left scapula was heard bronchial breathing of a distant character. There were no added sounds. The right lung gave no abnormal physical signs. The heart and abdomen were normal. The temperature on admission was 103°, rising the following morning to 104·6°.

These physical signs persisting, and the dyspnœa becoming more marked while the temperature maintained its high range, after two days the left chest was explored in the posterior axillary line in the 9th interspace, and the syringe filled at once with a slightly turbid serum. The aspirator was then used, but only 1 oz. of fluid withdrawn.

On the seventh day of the illness the temperature fell suddenly to the normal line, but the crisis was delusive, for there was a rise again at night to 105°, and this was the beginning of a series of morning remissions when the temperature fell to 99°, and evening exacerbations when it rose to 104° or 105°.

On July 27th the dulness had extended to the inter-scapular region, where was heard distant breathing accompanied with fine crepitations. The note was still impaired over the left lung in front, and the breathing less audible than on the right side. The exploring syringe was again used in the same place as before, and withdrawn full of pus.

On the 28th the child was taken to the theatre, anæsthetised, and a portion of the 9th rib removed by Mr. Stonham. The lung was found to be adherent to the chest-wall at this place, and on making an incision into it a small abscess cavity was discovered full of pus and debris.

No marked improvement followed the operation, and the history of the case for some weeks was that of progressive emaciation accompanied with sweating and diarrhœa. The temperature remained irregularly raised, losing, however, its marked remittent character. The wound discharged freely, frothy pus bubbling out when the child coughed. The physical signs were those of consolidation of the left lung.

On September 22nd, the child having become by this time very weak and thin in spite of possessing a curiously good appetite, Mr. Stonham again operated, removing portions of two ribs and examining the cavity thoroughly. It was about the size of a walnut, and a probe passed through it about 5 inches in a direction towards the root of the lung. The passage of the probe excited considerable cough. No foreign body was felt.

From the time of the second operation the child improved steadily. He gained weight, ceased to sweat and to have diarrhœa, and after a time was well enough to get up and play about in the ward. The temperature, though still raised, took a

lower range, and the discharge diminished in quantity as the wound contracted.

At this time, owing to an unfortunate incident, the case was lost sight of for three months. Scarlet fever broke out in the ward, and our patient was one of the sufferers. He was removed to the Fever Hospital, whence he returned on January 11th, 1893, in excellent health, having apparently gained weight in the interval, but with a still discharging, though almost closed wound. The physical signs had not materially changed since October.

He was in the Hospital only one day, and the following night met with a tragically sudden death. The nurse noticed that after a fit of coughing he seemed unable to breathe, and struggled and turned blue. The House Physician was fetched, but it was too late to perform tracheotomy.

The following are the P.M. notes by Dr. Hebb:—

"Body well nourished, no obvious contraction of the thorax, which is well shaped. Surgical wound in the line of the left scapular angle, part of the 9th rib having been removed. The aperture leads into a cavity of the lung, not bigger than a Spanish nut. The left pleura is much thickened and considerably adherent. The thickening is greater over the upper half, where the fibrous tissue is dense and hard. The whole lung is much indurated and little, if at all contracted. There is no ærating tissue left. The bronchi are enormously thickened and dilated, so that a section of the lung looks as if it were riddled with cavities. The indurated pulmonary tissue is greenish, mottled with blackish specks. At the apex is a smooth walled cavity, the size of a Spanish nut. In the left main bronchus is a foreign body, a piece of nut. The wall of the bronchus is pitted and irregular from ulceration of the mucosa. In the larynx are three patches of hæmorrhage into the mucosa. The mediastinal and abdominal glands are enlarged, white and indurated. The right lung and pleura are perfectly healthy. Heart 3½ ozs., cavities full of soft black clot. The abdominal viscera are perfectly normal."

The cause of death was clearly laryngeal obstruction, due to the dislodging of the foreign body from its bed in the left bronchus during cough. It seems almost equally clear that the impaction of the piece of nut in the bronchus was the primary

cause of the child's illness. There is absolutely no history as to when it was inhaled, but it was not while the child was in St. Margaret's, nor, so far as careful enquiry could elicit, was it during his stay in the Fever Hospital. The boy was accustomed to run about the streets before admission, and, as his mother said, "Nobody knew what he was up to." An attack of choking from the nut going down the wrong way might well have passed unnoticed. When found it was inspissated and shrunken to a hard dry substance, which had evidently been there some time, and it had made for itself an ulcerated bed in the bronchus, though the damage to the air passage was hardly so great as might have been expected, supposing the foreign body to have lain there six months. The alternative view of the case that the inhalation of the nut fragment was an unimportant incident in the course of a chronic pneumonia can hardly be maintained, and, taking the more probable explanation of the symptoms, one or two interesting points arise.

In the first place the foreign body was found in the *left* bronchus, which is apparently not so uncommon as the student is led to suppose. Out of 33 cases, for example, Dr. Cheadle found it in the right bronchus only 13 times.

Then the case on admission very closely resembled in history symptoms and physical signs an ordinary lobar pneumonia with pleural effusion. Even the herpes on the lip was present. The deficiency of the respiratory murmur over the whole of the left lung pointed, however, to some general obstruction of the left system of bronchi.

In referring to the reported cases of the kind, it appears that an acute inflammation of the lung, though not the rule, is by no means unknown after the impaction of a foreign body.

For instance, a pleuro-pneumonia followed the lodging of a round worm in the bronchus. P.M. was found grey hepatisation with recent lymph on the pleura.

The P.M. appearances are exactly those which are usually found after the foreign body has occupied the bronchus for some length of time. They seem to be in part brought about by the chronic inflammation, ending in fibrosis, which follows the primary collapse of the lung, and in part by the retention in the bronchi of secretion which causing softening of their walls

favours bronchiectasis, and finally, becoming decomposed leads to the formation of abscess cavities.

Mr. Godlee quotes cases in one of which an ear of grass was impacted in the right bronchus. General dilatation of the branches of the bronchi below was caused. The lung was hard and fibrous, and the bronchi had much thickening around them, and in places communicated with abscess cavities. One of these was opened and drained, but the patient unfortunately died of cerebral abscess six months after the accident. In another case the lodgment of a tooth in a bronchus led to bronchiectasis and abscess cavities. Again, a patient after "swallowing" a piece of bone suffered from cough with fetid expectoration, and an abscess was found and opened. The foreign body was coughed up after remaining 18 months in the bronchus, and the symptoms were thereby relieved.

A specimen in the Museum of the College of Surgeons shows the result of the impaction of a piece of bone in the orifice of the third branch of the right bronchus. P.M. two months afterwards the lower $\frac{2}{3}$rds of the lung was of dense consistence, and the bronchi generally were dilated and filled with purulent fluid of a very offensive odour. The patient had suffered from fever, night sweats, and emaciation, and had copious, purulent, offensive expectoration.

It was unfortunate that J. D. should have died accidentally, for his was a favourable case for surgical treatment, in that the abscesses were not multiple, and there was such marked improvement in his general condition before his death that there seemed good hope of ultimate complete recovery.

CASE OF CONTINUOUS HICCOUGH.

By Mr. GEORGE NORMAN.

Julia H—, aged 21, domestic servant, admitted to the Hospital under Dr. Sturges Dec. 24th, 1892, suffering from hiccough, which had been nearly continuous for the last eight weeks.

She was rather a delicate child until 7 years of age; had most children's complaints, but no serious illness; since then has enjoyed very good health. She has always been of an excitable nature, at times breaking out into long continued uncontrollable fits of laughter; seldom cried, never in low spirits, amusing and easily amused, and generally a cheerful, hard-working girl. Menses commenced æt. 16.

She went into service about 15 months ago; for some months before commencement of present complaint she had been feeling out of sorts, though with nothing very definite the matter; she was pale, had some dyspnœa on exertion, and had other symptoms accompanying not very severe anæmia. Early in October she had a fright, which appears to have had rather a marked effect on her, and to which she attributes her present symptom. One evening she was sitting in a room reading, and believing herself to be alone in the house, when the door of the room was suddenly opened by a fellow-servant who had been out but had returned unawares.

Three weeks afterwards the hiccough commenced; during the interval between its commencement and the fright she appears to have been depressed in spirits, starting at the least noise; frequently sighing, and complaining of numbness in limbs, and difficulty in holding things owing to this sensation; seemed fidgety, and fainted on one or two occasions.

Since the latter end of October until her admission to the Hospital, the hiccough during her waking hours has been continuous excepting for two or three intervals, none of which—by her own account—lasting more than 3 consecutive days.

During sleep she was free from hiccough, but her nights were not good—narcotics and sedatives had frequently to be resorted to.

Throughout her illness—excepting during the intermissions—she has been unable to take solid food, and her diet has consisted of milk, light puddings, and beef tea, though her father says if cake, pastry, &c., were given to her under the bond of secrecy, she would often eat them when alone in her room. She is supposed to have lost about a stone in weight during last two months, and has been kept in bed the greater part of the time.

Since the commencement of her illness she has been under the care of Mr. A. W. Harrison, of South Croydon, a former resident at the Hospital, to whom I am indebted for the details of treatment before admission. He has tried numerous remedies and therapeutic agents, including iron, the bromides, valerian, stomachics, pilocarpine, jaborandi, morphia, chloral, &c., sinapisms to epigastrium, round the insertion of the diaphragm, and blisters on the neck over the phrenic nerves without much avail, though the pilocarpine and jaborandi may have done some good as the intervals of remission occured after the use of these drugs. The morphia was given hypodermically at bed-time to produce sleep, but had no lasting effect on the hiccough.

The family history is not good. Her eldest brother, a congenital idiot, died in Wandsworth Asylum, aet. 17. Two sisters and a brother of her paternal grandfather were also of unsound mind.

Two brothers healthy. Six sisters healthy, but all rather excitable.

Father aet. 53, mother 53, healthy.

On Admission.—Patient is a healthy-looking, well-nourished girl; her eyes are prominent and continually shifting, never fixing any one point for many moments together. Her general aspect is typically that of a nervous, hysterical girl. The hiccough, which is constant excepting during and just before sleep, occurs 50 or 60 times in the minute, increasing in frequency when patient is spoken to, or is under observation.

The character of the sound differs somewhat to that of ordinary

hiccough, being more like a sudden noisy inspiration, the difference being probably due to the fact that the patient keeps her mouth open during the spasm, and appears to make no attempt to control it.

Tongue furred; breath offensive; pulse small, 76; no enlargement of the thyroid gland; extremities inclined to be cold; chest nil; abdomen slightly distended; on auscultation, air is heard to enter stomach with a gurgling sound; bowels confined; takes only fluid nourishment, and that in small quantities at a time owing to the difficulty in swallowing.

December 26th.—Patient in bed since admission; hiccough continuous; nights not good, morphia gr. ½ last night; to-day a strong faradic current applied; one pole over the phrenic nerve in the neck; the other over the diaphragm. She sobbed for two hours after application, during which time the hiccough ceased. Given ammon. brom. gr. xv.; tr. valerian ♏xx.; aq. ad. ℥i., t.d.s.

December 30th.—Current applied daily since last note, but with gradually lessening effect, discontinued to-day. Slept well after morphia gr. ⅓. Gets up.

January 4th.—Yesterday about ℥xiv. of mustard and water given to patient, but with no emetic effect, probably owing to the small quantities swallowed at a time. Soon afterwards she complained of aching pain in left lumbar and iliac regions and hiccough ceased. She was quiet until 5 a.m. this morning when she commenced to sneeze, and has done so continuously since. There is no coryza or suffusion of eyes. Sneezes occur about 30 times in the minute. Is taking solid food without difficulty. Haustus omitted.

January 7th.—Given snuff, also liq. ammon. fort. to smell; patient then complained of nausea, and the sneezing suddenly changed back into hiccough more convulsive in character than formerly. Previous mixture repeated, chloral hydras gr. x.; added.

January 12th.—Since last note, hiccough has been continuous, alternating at times with sneezing. Nights have been fairly good. Only taking fluid nourishment. Transferred on 9th to a private ward.

January 13th.—About 7.30 last night hiccough suddenly ceased. Excepting for a few occasional sneezes patient was quiet until sleep at 9.45 p.m.

January 15*th.*—No return of hiccough; went out for walk yesterday.

January 16*th.*—Last night hiccoughed for nearly an hour, then stopped; it commenced again this morning, since then it has been continuous, rather more convulsive in character, occurring 50 or 60 times in the minute. Tongue furred, breath offensive. Patient very drowsy. Given hst. senna co. ℥i.

January 22*nd.*—Hiccough as before. Tongue still furred, breath offensive, appetite poor; has complained of pain in left lumbar region. Given pulv. hyd. cret. gr. iv., pulv. jalapæ co. gr. x. on 19th without effect; to-day ordered ℞ syr. zingiberis ʒy, pot. bicarb. gr. xx., In f. calumbæ ℥i., ter die.

January 25*th.*—Shower bath last two evenings, without effect on the hiccough. Patient has been sulky and stubborn, refusing all nourishment for the last 24 hours. Fed by nasal tube this evening. Sobbed for short time after, during which the hiccough ceased.

January 28*th.*—Tongue clean, breath not offensive, taking food better. To-day chloral hydras gr. xx., t.d.s.

January 29*th.*—Patient drowsy, hiccough less violent and diminished in frequency.

January 31*st.*—Sleeping nearly continuously since last note, difficulty in rousing patient to take nourishment. Nasal feeding again resorted to.

February 3*rd.*—Under the influence of chloral since last note; nasal feeding occasionally since. Capillaries of cheek engorged, pulse small. This evening the temperature, which since admission has been subnormal, rose to 101°. Tongue furred, breath offensive, fauces red, tonsils enlarged and inflamed, follicles plugged. Chloral stopped.

February 4*th.*—Temperature irregular, 100·6°. Complains of sore throat. Pain on hiccoughing. Patient still drowsy. This evening, spasm, which had not been so frequent during day, ceased.

February 6*th.*—No recurrence since last note. Taking food better. Inflammation of tonsils has subsided. Tongue still furred. Ordered hyd. sub-chlor. gr. iii.; pulv. rhei. c. soda, gr. x.

February 7*th.*—This morning complained of numbness down left arm and leg, with loss of power in former; also some pain in left lumbar region last evening and again to-night; for about an

hour after getting into bed patient has had a continuous, short, irritable cough. Tonsils still slightly enlarged but not inflamed.

February 13th.—There has been no recurrence of hiccough or sneezing. Patient has been out walking on two or three occasions; she seems in very good health and spirits; appetite good, tongue clean. Discharged from Hospital.

March 31st.—Patient seen to-day. She appears to be in very good health and spirits, and has had no recurrence of either the hiccoughing or sneezing since her discharge from the Hospital.

Few remarks are necessary on the foregoing case. Its interest chiefly consists in its rarity, long continuance, and the little effect this distressing symptom had on the general health of the patient.

As a guide in the treatment of any further case of a like nature it is of little value; it will be seen that the therapeutic agents which have gained repute in similar cases proved of no avail in its treatment, and that this appears to be another example of the old adage of Hippocrates that "Fever cures spasm," as it was during an attack of acute tonsillitis that the hiccough ceased.

CASES FROM THE SURGICAL WARDS.

By Mr. H. C. De RENZI.

As preface to the following record I think it may be well to state that all these cases have passed through my hands either in my capacity as House Surgeon or when I was acting as locum tenens for the Surgical Registrar, and I take this opportunity of expressing my indebtedness to the Surgeons for giving me free permission to make use of the cases which have been in their respective Wards.

OVARIAN TUMOURS.

Eight consecutive cases in which ovariotomy was performed, all successful.

I. Susannah B— (Mr. Macnamara's case), æt. 38, single. Admitted on February 6th, 1892. Patient first noticed swelling in abdomen 9 months ago, commenced in left iliac region. Enlargement gradual for first 8 months. Has never been accompanied with much pain, but says that at first "there was a sense of fulness and that she felt weak." Had an attack of acute pain of a "shooting character" 1 month ago. There has been no marked difference in the periods, which have remained regular; if anything, slightly more scanty for the last few months. Has had no other discharge. Bowels have been rather constipated. Has had no trouble with micturition. Catamenia commenced at 15 years, always regular, generally lasted 5 or 6 days. Has had rheumatic fever three times, no other illnesses. Patient is well nourished, exceedingly anxious about her illness. Has been menstruating since admission. Abdomen is occupied by a large semi-elastic tumour. Absolute dulness over front of abdomen from four fingers breadth above umbilicus, flanks resonant.

Fluctuation from side to side, and from above downwards. Umbilicus somewhat stretched out. No tenderness. Tumour somewhat movable. *Measurements.*—At umbilicus 35 inches; four fingers breadth below umbilicus 36½ inches; pubes to umbilicus 4½ inches; ensiform cartilage to umbilicus 7½ inches; right iliac spine to umbilicus 9½ inches; left iliac spine to umbilicus 9½ inches. On February 17th the patient was anæsthetised with ether, and Mr. Macnamara made an incision 4 inches in length in the middle line below the umbilicus. There were some recent adhesions uniting the tumour to the abdominal wall in front, but these were easily broken down by the hand. The wall of the cyst was punctured with a Wells's trocar and 9½ pints of clear brownish coloured fluid withdrawn. After the fluid had been drawn off, the pedicle, which was not very thick, was doubly ligatured and the sac removed. The latter weighed 1lb. 6ozs., and the wall all over was covered with secondary cysts. These were very tense, and looked as though they contained colloid material, but on pricking one or two they were found to contain a similar fluid to the main cyst. Abdominal cavity irrigated with warm boracic lotion and Douglas's pouch well mopped out. All hæmorrhage having been stopped, the wound was closed with 5 deep (silk) and superficial horse hair sutures. Patient was very collapsed after the operation, pulse small and rapid. *February 18th.*—Was sick twice after the operation. Is fairly bright this morning. Pulse 120. Is to have milk ℥i. every two hours. Temperature 99·6° Fahr. *February 22nd.*—Wound has been dressed once since the operation. Is looking very well. Patient had a very restless night. Fainted five times. Is much better this morning. *March 4th.*—Wound has now quite healed. Patient is doing extremely well. *March 14th.*—Has been fitted with a belt. *March 22nd.*—On the evening of the 19th inst. patient got up and afterwards complained of pains in the left leg, which was found to be very much swollen and tender. A hard mass can be felt in upper part of formoral vein. *April 20th.*—Patient left the hospital to-day. Wound has completely healed, and swelling in left leg has entirely disappeared. Temperature normal throughout.

II. E— H—, æt. 31, single. Admitted under Mr. Cowell's care on May 18th, 1892. Has noticed a "swelling" in both sides of abdomen for last two years. It appeared to remain stationary until

six months ago, when it commenced to increase in size, and has continued to do so up till the time of admission. Has had no pain up to a fortnight ago; always had good health and a large appetite; during last six months she has lost weight considerably; patient last menstruated 10 days prior to admission; has menstruated every 3 weeks for the last 4 months, and the discharge has been more profuse. Abdomen fairly evenly distended, but a little more on right than left side; umbilicus is pouched out; superficial veins slightly enlarged on right side; abdomen feels tense; fluctuation can be obtained all over front. Apparently there is a greater tumour mass on right side, with a lesser one on left side; there being a distinct sulcus between them; tumour extends to about 1 inch above umbilicus; upper limit can be seen to descend on deep inspiration. Abdomen dull in front to 1 inch above umbilicus, resonant in flanks; dull down to pubes; gushing sounds only can be heard over tumour. *Measurements.*—Maximum girth of abdomen, 32¾ inches (1 inch below umbilicus): circumference at umbilicus, 32 inches: distance from umbilicus to ensiform cartilage, 6¼ inches: distance from umbilicus to pubes, 8½ inches: distance from umbilicus to right anterior superior iliac spine, 7 inches: distance from umbilicus to left anterior superior iliac spine, 8 inches; breasts very small and ill developed; no abnormal physical signs in chest; somewhat increased frequency of micturition lately; no retention or incontinence; urine pale yellow, clear, sp. gr. 1010, slightly acid; no albumen, no attacks indicative of peritonitis. On May 19th, the patient having been anæsthetised with nitrous oxide and ether, an incision about 4 inches in extent was made by Mr. Cowell, from just below the umbilicus. On division of the peritoneum, an unusually large amount of clear serous fluid escaped. On passing the hand into the abdominal cavity two tumours were found, the right one being more to the front than the left. The tumours were freely movable, and there were no adhesions whatever; right one was multilocular. The trocar was thrust into it in 2 or 3 places: from some, thin serous fluid escaped: from others, thick but clear glairy fluid came away; nearly all the fluid having been drawn off, the tumour was drawn out of the abdomen, and the pedicle was transfixed, and ligatured by means of the Staffordshire knot; the cyst was then cut off. The left tumour, which was nearly as

large as the other, and also multilocular, was then similarly dealt with, and its pedicle ligatured. The abdominal cavity was then irrigated with warm boracic lotion, the fluid coming back perfectly clear. The superfluous fluid was mopped out with sponges. The wound was then sewn up (without drainage tube) with 7 deep silver wire sutures, and intervening superficial horsehair sutures, dressed with iodoform and gauze; usual antiseptic precautions taken throughout; patient took the anæsthetic well, though at one time there was some retching, which caused the intestines to bulge through the wound; patient was on the table about 40 minutes. There was some trouble with vomiting for several days after the operation, but it was not sufficient to cause any anxiety. For the first 24 hours after the operation the patient had nothing by the mouth but a little ice to allay the thirst, which was very distressing. For two nights after the operation she had morphia hypodermically (gr. ⅓). On May 21st catamenia commenced, and she continued to menstruate until the 25th; on the 6th day after operation the wound was dressed. There had been scarcely any discharge, and it was looking very healthy. No abdominal distension. On May 30th the stitches were removed, and the patient measured for an abdominal belt. There was some little difficulty at times with the patient's bowels, necessitating the occasional administration of an enema, on June 9th patient got up for the first time, and on the 22nd she left the hospital. Temperature normal throughout.

III. Emily S—, æt. 43, married, tailoress. Admitted under Mr. Spencer's care, and complaining of "swelling of abdomen." States that she has noticed the "swelling" for the last twelve months—has increased much more rapidly lately. Until five weeks ago had not suffered any pain, but she states that she noticed when taking any exercise that she was very easily exhausted. After this she had severe pain in lower part of abdomen, especially in the iliac regions. The pain continued but abated somewhat after she had been in bed for about a week. Had never noticed any swelling of the legs or feet. No pain in thighs. Has always been able to pass her urine freely. No symptoms of pressure on bladder or rectum. Had always menstruated regularly until two years ago, since which time she has not done so at all. Has had seven children; three living

and healthy, one miscarriage 13 years ago. No history of any prevailing disease in any of the members of her family. There is a large abdominal tumour, over which the skin of the abdomen moves freely. The chief prominence is midway between the umbilicus and the pubes. The tumour itself is movable and fluctuation can be felt. A semi-solid mass can be felt in the left iliac region. Dulness all over abdomen; fluctuation cannot be felt from one side to the other. The main part of the tumour occupies the left side. There is no pain on manipulation. Uterus normal—fluctuating tumour can be felt occupying the left lateral fornix. *September 2nd*, 1892.—This afternoon patient was anæsthetised with ether, and after abdominal wall had been thoroughly washed with soap and water it was cleansed with a 1 in 20 solution of carbolic acid. An incision 3 inches in extent was then made midway between the umbilicus and the pubes. The layers of the abdominal wall having been divided and all hæmorrhage stopped, the peritoneum was opened and the cyst wall presented; this was then punctured with a Wells's trocar. Several other smaller cysts were similarly treated. Twelve pints of thick, gelatinous fluid escaped. After the contents of the cysts had been evacuated the latter were drawn out through the wound and the pedicle ligatured. The cyst was then cut off and after careful examination of the pedicle the latter was dropped into the pelvic cavity. The opposite ovary was examined and found to be normal. A small portion of the tumour was of solid consistence. The peritoneal cavity was then sponged out. Some recent omental adhesions were torn through without hæmorrhage. The peritoneum and other layers of the abdominal wall were then brought together by silk sutures after a sponge had been introduced into and withdrawn from Douglas's pouch. Wound dressed with iodoform and the cyanide of zinc and mercury gauze. Patient soon recovered from the anæsthetic, and was not at all sick. *September 3rd.*—Has had a very good night. No sickness. Pulse 92. Feels very comfortable. Has not had anything but hot water up to 11 a.m. to-day, when she had half an ounce of warm milk. Beef-tea and milk to be continued in small quantities. *September 4th.*—Has been taking nourishment freely. Vomited slightly at 11.45 p.m.
this morning vomited three times.
Slight abdominal distension and tend

Slight vaginal discharge noticed. Has not vomited again. Passes water freely, and has done so since the operation. *September 7th.*—Vaginal discharge has ceased. No vomiting. *September 9th.*—Wound dressed and stitches removed. *September 20th.*—Abdominal belt fitted. Now sits up daily. *October 4th.*—Patient left the hospital for a convalescent home to-day. Temperature has been normal throughout.

IV. Maria B— (Mr. Macnamara's case), æt. 53, married. Admitted January 4th, 1892, complaining of "swelling of abdomen." Patient states that her abdomen began to swell about two months ago, and that it rapidly increased in size for about six weeks, since which time she does not think it has got any bigger. States that it commenced to swell without any pain, although she has had slight attacks of pain in the abdomen since she first noticed the swelling. There has not been any vaginal discharge. Has frequently had feeling of nausea, but has not been actually sick. Bowels have been regular. No trouble with micturition. Catamenia commenced between 12 and 13 years of age, and she states that she was always regular up to the time of the menopause, which occcurred between 48 and 49. States that she never had any bleeding between the periods or any discharge whatever. Has been married for 30 years, but has never had any children or any miscarriages. Family and previous personal history good. Patient has a florid complexion—well marked arcus senilis. Heart normal; lungs, few bronchitic sounds at bases. Abdomen is very much distended, bulges more anteriorly than laterally, especially on the side of the middle line. The umbilicus is not flattened or protruded. On palpation a large elastic tumour is felt reaching up to rather more than half-way between umbilicus and ensiform cartilage, extending over into both lumbar regions. Abdominal wall freely movable over the mass. No contractions felt by manipulation. There is a sense of fluctuation, but this is only felt through a small area. There is absolute dulness all over except in epigastrium, part of both hypochondriacs, also in flanks, more left than right. No tenderness. No friction sound or uterine souffle. *Measurements.*—Circumference at umbilicus, 41 inches; pubes to umbilicus, 8¾ inches; ensiform cartilage to umbilicus, 9 inches; right iliac spine to umbilicus, 9¾ inches; left iliac spine to umbilicus,

$9\frac{3}{4}$ inches; vagina directed towards left, narrow, cervix cannot be reached, no indication of normal fornices, no resistance. Tumour cannot be felt bimanually. *January 29th.*—This afternoon patient was anæsthetised with chloroform and Mr. Macnamara made an incision about 4 inches in length, commencing just below the umbilicus. After all hæmorrhage had been stopped, the peritoneum was opened and the tumour presented. It was found to be entirely free from adhesions. The cyst was punctured with a Wells's trocar and about $9\frac{1}{2}$ pints of chocolate coloured fluid escaped. Pedicle ligatured with stout silk. Peritoneal cavity irrigated with warm boracic lotion. A small round tumour was also taken from the "fundus uteri" at the time of operation; this was found to be a sub-peritoneal fibroid with masses of calcareous deposit. Deep and superficial sutures used. No drainage tube. *February 1st.*—Patient was progressing most favourably until to-day, when it was discovered that there was a hernia of the intestine through the lower part of the wound. Stitches removed and gut returned. Stitches reapplied. From this time the patient made an uninterrupted recovery. Temperature normal throughout. *February 26th.*—Vaginal examination—cervix in normal position. Os small. Uterus fairly moveable. Vagina normal. Anterior and posterior *cul de sacs* rather shortened. Wall of cyst weighed $9\frac{1}{2}$ ozs.: fluid contained (Dr. Hebb's report)—(1) numerous red blood discs; (2) small granular cells, probably degenerated red blood discs and leucocytes; (3) large spheroidal aggregations of round highly refracting globules, with greenish yellow reflex; these are probably degenerating mucosa cells; (4) pigment granules; (5) detritus; (6) cholesterine. Analysis of fluid from cyst—(*a*) Organic matter—coagulable albumen, 9·06; (*b*) chloride of sodium, 0·56; (*c*) other mineral matter, 0·26; total, 9·90. The internal surface of the cyst wall was studded with small collections of growths of a papillomatous appearance, showing on section and microscopical examination to consist of a stroma of fibrous tissue containing several cavities lined with columnar epithelium (secondary cysts). The papillary processes round the margin of the section are lined with columnar epithelium. Cyst wall weighed $9\frac{1}{2}$ ozs.

V. Lydia A— (Mr. Macnamara's case), æt. 42, single. Admitted June 28th, 1892, with "swelling in lower part

of abdomen." Patient's abdomen has been large for several years. Has been getting weaker during the last twelve months, and has felt fatigue whenever she walked about, with occasional pain in the lower part of her abdomen. States that 5 weeks ago she had "inflammation of the womb," commenced with vomiting and severe pains in abdomen; the attack lasted five or six days. One month ago patient first noticed a lump in the lower part of her abdomen; thinks it has been growing larger. Since the attack referred to she has had pain in her back and abdomen on exertion. Micturition has been painful 5 weeks. Bowels always constipated. Has had no children and no miscarriages. Last catamenia commenced on June 23rd and ceased on June 29th, was slightly clotty, and attended with pain on first two days. Menstruation started at age of 14; has been regular up to the present time, lasts about six days. Has always been subject to a white discharge. *Measurements.*—Circumference at umbilicus, 25 inches; 2 inches below umbilicus, 28 inches; ensiform cartilage to umbilicus, 5 inches; pubes to umbilicus, 8 inches; right anterior superior iliac spine to umbilicus, 5¾ inches; left anterior superior iliac spine, 6 inches. *Abdomen.*—Tumour in abdomen is mainly on the left side, although it passes over the middle line to the right. The greatest breadth is 5 inches, and extends to within 2 inches of the umbilical level, slightly higher on left than in middle line. There is resonance as far as 2½ inches below umbilicus, and then the tumour is dull. Cervix uteri is in fair position and is rather large; the os is transverse, and admits tip of finger. Uterus is immovable; it is pressed to the front somewhat by a swelling situated posteriorly and to the right—it also extends to the left. An impulse from the abdomen is conveyed posteriorly, but is more marked against the cervix; a small mucous polypus protrudes from the os. The cavity of the uterus is not enlarged; the sound passes forwards and slightly to the right for the distance of 2¾ inches; the impulse from the abdominal wall is distinct. The tumour in the pelvis is firm. *July 6th.—Operation.*—Patient was anæsthetised with ether. An incision, 3 inches in length, was made in the middle line from just below the umbilicus. Cyst was punctured, and 11 ozs. of thick grumous fluid drawn off. Pedicle ligatured with thick silk. A small uterine fibroid was also removed. Abdominal cavity irrigated

with boracic lotion; no drainage tube employed; wound dressed with cyanide gauze and iodoform. *July 7th.*—Slight rise of temperature; vomited a very little yesterday evening; slight discharge appeared from vagina to-day. The wound was dressed on the 10th day, when the stitches were removed. From this time the patient made an uninterrupted recovery, and she left the hospital for a convalescent home 27 days after the operation. *Analysis of fluid* (Dr. Dupré).—Cyst contents consisted of a bright red slightly turbid fluid; organic matter, chiefly coagulable albumen and some blood, 8·03; chloride of sodium, ·76; other mineral matter, ·09; total residue (dry), 8·08; about 2·4 per cent. blood.

VI. Etta C—(Mr. Macnamara's case), æt. 23, single. Admitted July 11th, 1892, complaining of a "swelling" in abdomen. States that in the beginning of the year she noticed a swelling in the lower part of the abdomen "about the size of a hen's egg," and situated, she thinks, slightly to the left of the middle line; it has been gradually increasing in size up to the present time, but much more rapidly during the last fortnight. She has not noticed in which direction the swelling has increased. Since Christmas, 1891, has had a slight aching pain in lower part of abdomen at intervals, especially on walking. Has gradually been getting worse. Never had any pain on micturition. Bowels open regularly. Has never had any children. Last period commenced on July 1st and ceased on July 5th, quite normal. Menstruation commenced at the age of 14. Has been regular every month up to Christmas last. Since then the periods have occurred every 2 months for first 4 months, and every 6 weeks since, they have lasted 2 or three days, and the discharge has been less. No other discharge at any time. No previous serious illness. Usual physical signs of ovarian tumour. *Measurements.*—Circumference at umbilicus, 31 inches; circumference 2½ inches above umbilicus, 28 inches; circumference 2½ inches below umbilicus, 32½ inches; ensiform to umbilicus, 5½ inches; pubes to umbilicus, 8½ inches; right sup. iliac spine to umbilicus, 7 inches; left sup. iliac spine to umbilicus, 7½ inches. *July 13th.*—Patient anæsthetised with ether. 3-inch incision made in middle line below umbilicus. No adhesions to tumour; 6¾ pints of arrowroot-like fluid drawn off. Pedicle ligatured with silk; wound sutured with silk and horsehair (superficial), and dressed

with cyanide gauze. Weight of cyst wall, 1 lb. 13 oz. Patient only vomited once after the operation; there was a slight vaginal discharge on the following day. Temperature was normal throughout, with the exception of July 31st and August 1st, when it rose to 102° F. Patient complained a good deal of headache, but otherwise was quite well. Stitches removed on the 10th day, and the patient discharged on August 9th. Cyst contained a bright red and slightly turbid fluid. Organic matter, chiefly coagulable albumen and some blood, 8·67; chloride of sodium, 0·64; other mineral matter, 0·09; total dry residue, 9.40.

VII. Annie Y— (Mr. Macnamara's case), æt. 23, single. Admitted July 13th, 1892, with "tumour in abdomen." In the early part of January patient noticed some enlargement of the right side of her abdomen, which has been gradually increasing since; more rapidly during the two months prior to admission. Has had pain in lower part of abdomen after walking for last 6 months. Has been losing flesh. No vomiting. Micturition and defæcation normal. No children. Last period ceased 6 weeks prior to admission. Menstruation commenced at age of 14. Regular until 5 years ago, when she suffered more or less from amenorrhœa for 5 months. Usual physical signs of ovarian tumour; umbilicus somewhat retracted. Os and cervix rather high up, pointing somewhat backwards; os is smooth. Uterine mobility is slight. Sound passes with difficulty 1¾ inches forwards. *July 20th.*—Patient anæsthetised with ether. Incision from umbilicus in middle line for four inches. No adhesions to the tumour. In puncturing the tumour the trochar unfortunately slipped, and two or three pints of fluid escaped. After the remainder (about 9 pints) had drained away, the pedicle was ligatured and the cyst cut off. Abdomen washed out; on sponging in Douglas's pouch the pedicle was found to be bleeding; it was accordingly drawn up and the ligature was found to have slipped. Religatured, and abdomen again washed out. Wound united with silk sutures, and dressed with cyanide gauze. Before closing up the abdominal cavity the other ovary was removed as it was found to contain a small cyst. Weight of cyst wall, 1 lb. 10 ozs. The patient was very much collapsed after the operation. Vomiting was so persistent that for four days she had to have rectal feeding. Stitches removed 10 days

after the operation. Temperature normal throughout. Patient left the hospital on August 15th, 1892. Contents of cyst: reddish brown turbid fluid. Organic matter, chiefly coagulable albumen and some blood, 9·62; chloride of sodium, 0·60; other mineral matter, 0·22; total dry residue, 10·44. About 0·5 per cent. blood.

VIII. Annie P—(Mr. Macnamara's case), æt. 25, married. Attended on October 4th, 1892, with painful swelling in left side of abdomen. Three weeks after last confinement (July 6th, 1892) patient noticed swelling in left groin, which she states disappeared on the application of ice. After getting up she noticed that her abdomen was larger on the left side, and she had some pain. Three weeks prior to admission, pain became severe. Catamenia began at 16, regular until 22, irregular after. Has not menstruated since confinement. Has two children—no miscarriages. Bowels fairly regular. No trouble with micturition. Usual physical signs of ovarian tumour. Strictly confined to the left side. *Measurements.*—Circumference at umbilicus, 26¼ inches; ensiform to umbilicus, 6½ inches; pubes to umbilicus, 6¼ inches; right superior iliac spine to umbilicus, 5½ inches; left superior iliac spine, 5¾ inches. Cervix in normal position. Os closed. Uterus fairly movable. A swelling is felt in front and rather to the left; bimanually it is found to be continuous with the abdominal swelling, very little impulse conveyed to cervix. *October 22nd.*—Patient anæsthetised with ether. Mr. Macnamara made an incision 3 inches in extent in middle line below umbilicus. No adhesions to the tumour which was drawn out of wound, pedicle tied with silk ligature and removed. Wound united with silk sutures. The tumour was a cyst of the ovary, involving the whole of that gland, and having part of the broad ligament and fallopian tube attached. Contained thick yellowish green pus. This patient made an uninterrupted recovery. Wound healed by the first intention, and she left the hospital on November 22nd. Temperature normal throughout.

HERNIÆ.

Up to the beginning of the present year I have had twelve cases of hernia. Nine inguinal, two femoral, and one umbilical (not reported, as she was only admitted for the purpose of being

fitted with an abdominal belt). Both cases of femoral hernia occurred in women, both were strangulated, and in each case some form of radical cure was performed. The cases of inguinal hernia all occurred in males—three were admitted strangulated —one of these was of the congenital variety, and the radical cure was done according to Barker's method. In the other two cases the radical cure was also performed—one by Barker's method, and the other by twisting the sac (Ball's method). Four cases of irreducible hernia, in which the radical cure was performed by Macewen's method. One reducible hernia, in which Barker's operation was performed; and one inflamed hernia, which occurred in a child $1\frac{9}{12}$, and was reduced after the application of an ice bag. These cases have all been most successful. As is stated above, in almost all some form of radical cure has been performed, and the wounds have healed excellently under the double cyanide gauze dressing. It is essential that the parts should be well freed from hair, and be in contact with the 1 in 20 solution of carbolic acid for a short time before the operation. In very few of the cases was any drainage tube employed, and it is rarely required; if, however, one is used, it may be removed with the first dressing, which, following the advice of Sir Joseph Lister, I have generally changed within the first 24 hours after the operation. The second dressing may be left on, unless there is some indication to remove it, until the time for removal of the sutures. On no account should green protective or other impermeable covering be placed in contact with the wound. I found scarcely any discharge upon the second dressing, whereas the first, which had been on during the time when most exudation takes place, contained a considerable quantity. I invariably follow Sir Joseph Lister's plan in the dressing of wounds, and if it is carried out with strict attention to detail, there can be no question as to the extreme rarity of seeing wounds healing other than by the first intention. Most of the surgeons keep these cases of radical cure in bed from three weeks to a month after the operation (a point on which Mr. Barker lays great stress*). This allows the new material thrown out to become firm, avoids strain, and the patients are then discharged without a truss or with only a very light support.†

* *Vide* Mr. Barker's Paper, *British Medical Journal*, December 3rd, 1887.

† *Vide* Paper by Mr. Watson Cheyne, *Lancet*, Vol. ii., No. xix., 1892, page 1,040.

I. Matilda C—, æt. 37, single, nurse. Admitted to Holland Ward on December 27th, 1892, under Mr. Cowell's care, with a femoral hernia. Had swelling in right groin 20 years, size of a walnut; never wore a truss. On the day prior to admission had sudden pain in right groin and she vomited. On admission, tumour in right femoral region irreducible, no impulse, painful, bilious vomiting; some collapse. Mr. Cowell cut down upon the sac. It contained small intestine in a recoverable condition. Constriction divided and gut reduced. The neck of the sac was ligatured with silk and the skin wound united with horsehair sutures. Wound dressed with the double cyanide gauze. This patient made an excellent recovery, the wound healed by the first intention, and she left the hospital a month after admission.

II. Thomas S—, æt. 26, store-man. Admitted to St. Matthew Ward under Mr. Cowell's care, with a strangulated left inguinal hernia. States that on the morning of admission he was lifting some heavy weight when he noticed "sudden pain in the stomach." Two hours later began to vomit. Sent for a medical man, who discovered that patient had a hernia. Taxis tried but failed, so he came to the hospital. Had never noticed any lump in inguinal region, but he states that he has suffered pain in this region at times; never worn a truss. States that immediately after lifting the weight he had an action of the bowels, but they have not been open again. On admission was complaining of great pain in left inguinal region. There was a large tumour extending along the inguinal canal to the lower part of the scrotum, no impulse, painful on manipulation, resonant, vomiting bilious matter. Very slight taxis tried under ether without avail, so Mr. Cowell cut down upon the sac; this was then opened and found to contain a large amount of fluid and a long coil of small intestine of a port-wine colour, but it still retained its lustre. Stricture divided and gut reduced. The hernia was a congenital one, so Mr. Cowell put a ligature round the sac just above the testicle and another at the neck. Radical cure completed by a modification of Barker's method. Wound united with horsehair sutures and dressed with the cyanide of zinc and mercury gauze. Patient had nothing by the mouth except a little hot water during the first 24 hours. Stitches removed on the 9th day. Patient left the hospital one month after operation with a pad and bandage to act as a slight support.

III. Joseph F—, æt. 54, timber merchant. Admitted to St. Mark Ward under Mr. Davy's care on November 28th, 1892, with a strangulated right inguinal hernia. On the day of admission had vomited three times—not at all fæcal on any occasion. Bowels had been moved on the morning of admission. Admitted about 8.30 p.m. Large tense tumour occupying right inguino-scrotal region. Very slight taxis was tried without effect. Complained of pain on manipulation, but he walked to the hospital. Was not collapsed, but felt weak. No abdominal distension. Had not passed flatus or fæces since the morning. Has had a double inguinal hernia for the last five years, and has been wearing a double truss. Right hernia has not been down for the last two years. Previous to this time was easily able to reduce the hernia; that on the left side frequently comes down, but is easy of reduction. Has been accustomed to lift heavy weights. Hot bath and opium having failed, patient was anæsthetised and Mr. Davy cut down upon the hernia; the sac contained blood-stained fluid, gut of a port-wine colour without lustre, blood on outer side. No fæcal odour or trace of fæces. Stricture was divided—gut recovered considerably almost immediately afterwards. Sac washed out with warm carbolic (1 in 40) and after reduction of the intestine, its neck was ligatured and fundus removed. The pillars of the right abdominal ring were then brought together with silk sutures. Catgut and horsehair sutures used for uniting skin wound. No drainage tube employed. Wound dressed with iodoform and cyanide gauze. No food by mouth during first 20 hours after the operation. Was allowed a little hot water to moisten his mouth. Wound dressed on November 7th, stitches removed, quite healed. Patient made an excellent recovery.

IV. George W—, æt. 48, butcher. Admitted to St. Mark Ward under the care of Mr. Davy with a strangulated right inguinal hernia. Had a "rupture" for 30 years. Always able to return it until the day before admission. All signs of strangulation. Mr. Davy immediately cut down upon the sac, which was found to contain the cæcum and vermiform appendix. Gut in fairly good condition—still retained its lustre. Gut reduced. Sac twisted and left in canal. Pillars of external ring drawn together with sutures. Wound dressed with iodoform and the double cyanide gauze. With the exception of some slight

delirium this patient made an uninterrupted recovery. Has been seen lately, and has had no return of the hernia.

V. James P—, æt. 49, church porter. Admitted to St. Mark Ward on September 11th, 1892, with an irreducible inguinal hernia on the right side. This was very tense, painful, and there was no impulse on coughing. States that the hernia had been down for about 16 hours before he applied at the hospital. Had not passed flatus or fæces. From the feel of the tumour one was led to suppose that it contained omentum. Had vomited several times before admission and once after—not fæcal. Taxis was tried after the hot bath and also under ether, but without effect, so Mr. Spencer made an incision down to the hernial sac which was found to contain chiefly omentum, but there was a knuckle of intestine behind. The omentum was ligatured and excised. Constriction divided and gut returned. The radical cure was then performed by Macewen's method. Wound dressed with the double cyanide gauze. Gut in good condition. Patient had a little hot water by the mouth during the first 24 hours. Wound dressed on day after operation and again 8 days after, when the stitches were removed. Patient kept in bed for a month. Temperature never above the normal line.

VI. William E—, æt. 54, clerk. Admitted to St. Luke Ward under Mr. Spencer's care on August 16th, 1892, with an irreducible inguinal hernia on the right side. Has had a reducible inguinal hernia on this side for the last five years. On the morning of admission the hernia came down, and the patient was unable to reduce it. Taxis was tried by a practitioner, but without effect. Nine hours after the descent of the hernia patient applied at the hospital. There was then a very tense swelling occupying the right inguinal and scrotal regions. No impulse on coughing. Had not vomited, but had had a feeling of nausea. There was some redness of the over-lying skin, and the tumour was painful on manipulation. Taxis was tried for a short time whilst the patient was in a hot bath, but to no effect; this was again tried under ether, and being unsuccessful, an incision was made on the tumour, the sac was opened, and large intestine protruded. Gut slightly bruised, but in a perfectly healthy state otherwise. After division of the band, and reduction of the intestine, a radical cure was performed by Macewen's method. Medium sized carbolised silk sutures were used. Drainage tube

inserted at lower angle of wound. After the operation patient's temperature remained high for some days reaching 103° Fahr. at 7 p.m. on the evening of the 20th. On the 23rd the temperature reached 104° Fahr., when phenacetin grs. x. was administered, with the result that the temperature was reduced to the normal line, at which position it remained until patient's discharge from hospital on 24th of September. Discharged without a truss.

VII. Eliza S—, æt. 72, married. Admitted under Mr. Spencer's care on June 15th, 1892, with a femoral hernia on the right side. States that she has had "a rupture here" for the last 40 years. Always reducible until 4 days prior to admission, when vomiting and pain accompanied the inability to reduce the tumour. Bowels acted the day after, but not since. Flatus has passed. On admission the patient was not particularly collapsed, abdomen not distended, tongue furred, moist. Tumour in groin below Poupart's ligament, painful on manipulation, no impulse on coughing. Heart normal. Chest emphysematous. Urine, no albumen or sugar. Given tinct. opii, M—XX statim, and ice bag applied over hernia. Shortly after admission (9 p.m.) a ℥ii. enema of brandy was given, and the patient placed under the influence of chloroform. An incision was then made vertically over the tumour down to the sac, which was then carefully opened, and a knuckle of intestine found of a dark claret colour, but it had not lost its lustre. The constriction, which was at Gimbernat's ligament, was then divided, after which the gut was observed to recover itself to a great extent, so it was accordingly reduced into the abdominal cavity. The sac was then tied at its neck and cut off. The fascia over-lying the pectineus muscle was raised as a flap, and attached by silk sutures to Poupart's ligament. Continuous silk sutures applied to skin. The operation only lasted 20 minutes, and the patient stood the anæsthetic well. At 12 midnight the patient was progressing very favourably, had recovered well from the operation, and only complained of a feeling of thirst; was allowed half an ounce of milk. On the following day patient was very well, had not been at all sick, and had slept comfortably. Temperature 100·2°. Took ℥ii. of milk every hour. Two ounces of brandy given in the 24 hours, and pil. opii grain ½ at night. On the 6th day the wound was dressed, and was looking well, and upper stitch

relieved as there appeared to be some tension in this position. On the evening of the same day patient complained of some pain in abdomen. No distension and no rise of temperature. The latter has been normal since the operation. Bowels have not been open, so an enema was administered and ol. ricini with tinct. opii Mx. given internally with a good result. The sutures were removed on the 10th day, when the wound had completely healed. The patient was kept in bed for a month, and after being up in the ward for a few days was discharged from hospital without a truss. The temperature never rose above 100·2° Fahr., and was only as high as this for 2 days after the operation.

VIII. James C—, æt. 40, engineer. Admitted under Mr. Macnamara's care on June 2nd, 1892, with an irreducible inguinal hernia on the right side. No symptoms of strangulation. Has had swelling in right groin for the last seven years, which he attributes to "carrying a heavy load." States that "swelling" was small at first, but gradually increased in size, especially during the year previous to admission. Always been a healthy man. Has a scrotal hernia on right side, resonant on percussion. On June 3rd patient was placed under ether, and an incision made on the tumour down to the sac, which was opened and found to contain healthy intestine. This was accordingly reduced into the abdominal cavity. The hernial sac was then dissected from its surrounding structures. Cord not particularly adherent. Sac was then folded upon itself, transfixed with carbolised silk, and stitched at the internal ring. Pillars of external ring were then brought together by silk sutures. Silk and horsehair sutures used for skin. Patient had some little pain at night so was given a hypodermic injection of morphia (gr. $\frac{1}{3}$); comfortable otherwise. On the seventh day after the operation the wound was dressed and the stitches removed. There was slight orchitis, but no other inflammation. From this time the patient made a rapid recovery, leaving the hospital five weeks after the operation without a truss.

IX. Henry H—, æt. 1 year 9 months. Admitted to Chadwick Ward under Mr. Macnamara's care on October 20th, 1892, with an inflamed inguinal hernia on the left side. Has worn various kinds of trusses since he was 3 months old (at which age the mother first noticed the hernia), but the mother states that the tumour invariably reappears. Scrotal tumour on left side, occu-

pying also inguinal canal. Impulse present, irreducible, painful; overlying skin inflamed; bowels have not been open since admission to hospital, but were day previous; has not vomited; no collapse. Patient was given a hot bath and taxis tried but without effect, so an ice bag was applied. On the following morning reduction was easily effected by taxis. Patient kept in bed. On October 25th the patient was slightly sick, but there was no return of the hernia. A day or two after this he developed bronchitis, which prevented Mr. Macnamara from performing (as he had intended) the operation for the radical cure. On November 1st patient was in much the same condition, so the operation was further postponed. He left the hospital on November 23rd for a convalescent home to recruit his health after the bronchitic attack. There has been no return of the hernia, and he was discharged wearing a very effective woollen truss made by the sister of the ward. Patient has not applied at the hospital since.

X. George G—, æt. 39, porter. Admitted to St. Luke's Ward under Mr. Macnamara's care on November 11th, 1892, with a tumour in the right inguinal region; painful; slight impulse on coughing; ring occupied, and tumour extending through this to the scrotum; has had an inguinal hernia on both sides for the last five years; always reducible; never worn a truss; patient states that he noticed the swelling for about eight hours before admission, and he was unable to reduce it; bowels had not acted for the previous 30 hours, but he passed flatus after admission; no vomiting, collapse, or other signs of strangulation. Very gentle taxis was tried for a short time, but without success. He was given twenty minims of tinct. opii, and an ice bag applied to the tumour. When he was examined about an hour later the hernia was found to have disappeared; patient was most anxious to have the radical cure performed, so on November 23rd Mr. Macnamara made an incision over the right inguinal canal, dissected out the sac which was empty, and then invaginated it, after passing a ligature up from its distal extremity through the sac, and internal oblique, and transversalis muscles opposite the internal abdominal ring. Pillars of external abdominal ring drawn together with carbolised silk; horsehair sutures used for skin; no drainage tube used; wound dressed with iodoform and the double cyanide

gauze, which had been previously squeezed out of a solution of 1 in 20 carbolic. *December 1st.*—Wound dressed to-day, has quite healed; sutures removed; temperature normal throughout.

XI. On *December 7th.*—Mr. Macnamara operated on the opposite side. The external abdominal ring was exposed; sac dissected up; ligatured at neck; ends of ligatures passed through transversalis, internal and external oblique muscles, and tied. Pillars of external ring drawn together with carbolised silk ligatures; drainage tube inserted; horsehair sutures applied; wound dressed in same way as opposite side. *December 10th.*—Wound dressed this morning; drainage tube removed. *December 17th.*—Wound dressed; completely healed; sutures removed. *December 31st.*—To-day there was a slight discharge from the lower angle of the wound; this continued until the 19th of January, 1893, when one of the silk ligatures was found projecting from the wound; it was quite loose, so was removed. *January 28th.*—Patient has been up for the last few days; wound has completely healed; temperature has been normal throughout; discharged from hospital to-day.

DISEASES OF SKIN, SUBCUTANEOUS TISSUES, FASCIÆ, &c.

Seven cases of whitlow and palmar abscess. In one case amputation at the elbow-joint had eventually to be performed, and another was re-admitted for amputation of the finger, which he found a burden to him, as the flexor tendons had sloughed. Mr. Cowell's case is one of exceptional interest, as illustrating the rapidity with which these cases go on, and showing the necessity for early free incision and treatment with the sharp spoon. One case of deep abscess of thigh. One case of extensive tubercular ulceration of the leg extending to the bone, and necessitating amputation of the thigh. One case of gangrene of foot.

Abscess of Thigh.

Jane D—, æt. 36, married. Admitted to Chadwick Ward, under Mr. Macnamara's care, on July 10th, 1892, with an abscess of the right thigh in the region of Hunter's canal. Two weeks ago first noticed "small white lumps" on right calf, which discharged "matter" the same day. One week later

she felt pain in right thigh, especially on attempting to walk, and then found that there was a small swelling—not red—on inner side. This increased in size up to the time of admission. Has not felt well and has lost appetite during the last three weeks. Has been in bed for the last fortnight. On admission there were two small ulcers, one on the inner and the other on the outer side of the calf, discharging pus. Large fluctuating swelling over situation of Hunter's canal on right side. Patient was much emaciated. Temperature on admission 101·6° F. Has had 4 children, 1 miscarriage. "Never been ill before." Boracic fomentations applied to right calf and thigh. On the following day an incision was made into the abscess on the front of the thigh. About a pint of dirty, greenish, offensive pus was evacuated. Another incision was made below and on the inner side, and a drainage tube inserted between the two incisions. The abscess cavity was then freely irrigated with warm 1 in 40 carbolic lotion. Boracic fomentations applied on the evening of the day of operation; the patient was decidedly better, and the temperature was gradually coming down. On July 13th it had reached the normal line, where it remained until the evening of the 18th, when the temperature rose to 101·4° F. During this period the wound, after the first day, was dressed antiseptically twice daily. There was very free discharge, but the drainage was complete. At 8 P.M. on July 20th the temperature rose to 103·6° F.; there was nothing unusual about the wound, nor was there any evidence of collection of pus elsewhere. Temperature ranged between 101° F. and 103° F. for the next four days, when it again came down to the normal line, where it remained for a week. On August 1st it commenced to rise, reaching 104° F. at 4 P.M. on the 3rd. On the 5th, as there was some swelling in the neighbourhood of Scarpa's triangle, an incision was made in this position, and a large amount of pus evacuated. A drainage tube was now inserted from this opening to that in the lower part of the thigh. Patient was much better after the operation, but she had been considerably pulled down by the pyrexia and profuse discharge. The temperature was somewhat reduced, but it remained between 99° F. and 101° F. Patient was put on stimulants and generous diet. On August 15th patient's temperature rose to 103·4° F., and continued high (with the

exception of one day—18th) until the 20th, when it suddenly fell to normal, and remained so from that date. There was never any evidence of chest mischief. Patient was subject from time to time to attacks of diarrhœa. The drainage tubes were gradually shortened, and the wounds allowed to heal. Patient left the hospital for a convalescent home on September 8th, wounds completely healed. Has been heard of since return, and is in excellent health.

Case of Tubercular Ulceration of the Leg, necessitating Amputation through the Thigh.

Frederick L—, æt. 31. Admitted on November 7th, 1892, to St. Matthew Ward, under the care of Mr. Cowell. Patient was in the hospital from November, 1891, to June, 1892, with ulceration of the left leg and tubercular disease of the left testicle, which was removed. The right testicle was removed at the Margate Hospital in August, 1891. States that he was told it was "tubercular." Right leg amputated through thigh 8 years ago by Mr. Cowell. There is extensive deep ulceration of the outer and under parts of the left leg, chiefly confined to the middle portion. There is great pain, especially when the fomentations (which are being applied every four hours) are changed. Ulcer everted edges. General swelling of leg. States that he has a constant "dull, aching pain" in the knee and leg. Has been treated with mercury and iodide of potassium, but there was no appreciable change. Is unable to sleep at night without a sleeping draught. Abdomen, nil. Chest, heart and lungs, normal. Bowels regular. Appetite good. Sight good. No evidence of choroidal tubercles on ophthalmoscopic examination. Nothing abnormal on rectal examination. *January 4th*, 1893.—Patient has been progressively getting worse as far as the ulceration of the leg is concerned, but his general health is good. Has poppy fomentations applied to the ulcer, which he states give him much relief, but he is not able to sleep without chloral and bromide. *January 10th*, 1893.—This afternoon, as the patient was gradually getting worse, Mr. Cowell performed amputation through the thigh by long anterior and short posterior flaps. Posterior flap made by cutting from within outwards. There was very little hæmorrhage after removal of the tourniquet. Patient stood the operation well. Silver wire

and horsehair sutures used for bringing the surface of the wound into apposition. Drainage tube inserted and wound dressed with the carbolised cyanide gauze. On the 22nd all stitches were removed, and the drainage tube, which had been gradually shortened, was completely withdrawn. The patient made an excellent recovery, never once having a bad symptom. The temperature was slightly raised the day after the operation, but this gradually came down to the normal line.

Gangrene.

Maria D—, æt. 66, married. Admitted to Chadwick Ward, under Mr. Macnamara's care, on November 17th, 1892. Was quite well until about twelve months before admission, when she noticed pain in the toes of the right foot. The left foot was quite normal at the time. States that the medical man she consulted told her that her feet were "very much congested." She remained in bed for several months. Cannot say exactly how long the feet have been in their present condition, but she thinks about five months. States that the plantar aspect of the toes was the first affected. Has been gradually spreading, and there has been an offensive odour. No injury to foot. States that she has always been a healthy woman. No history of syphilis. Has not been accustomed to get her feet wet in any way. Has had thirteen children; three miscarriages. Has never had rheumatism or gout. Habits temperate. Has three children living—healthy; others died in infancy. No history of any disease prevailing in family. Patient appears to be in fairly good general health. Complains of pain in the left foot and leg, from the former of which there is a markedly offensive odour. The 2nd, 3rd, 4th, and 5th toes of the left foot are gangrenous, also the foot itself to about the middle—further on the dorsum. The 1st, 2nd, 3rd, and 4th toes of the right foot are deeply congested. There is considerable inflammation in the surrounding tissues. Radial and temporal arteries appear normal. Heart and lungs normal. Abdomen, nil. Patient was put upon m. x. tinct. opii three times daily, and a generous diet ordered. *December 10th.*—Patient is in much the same condition as on admission. Gangrene has not spread. Line of demarcation more marked. Complains of a good deal of pain. *December*

23*rd.*—Patient left the hospital to-day for the infirmary. The foot is rapidly sloughing at the line of demarcation.

Florence V—, hospital nurse. Admitted to Holland Ward on December 26th, 1892, under Mr. Cowell, with paronychia cellulosa (right index finger). Two days prior to admission patient pricked her finger with some holly, but did not take any notice of this at the time, and assisted in the dressing of the different cases in the ward in which she was on duty, where there was a case of suppurative arthritis of the shoulder. The accident happened on the *morning* of the 24th, and the patient was admitted to the hospital on the *evening* of the 26th. On Christmas Day she consulted Mr. Bond, as she was suffering much pain, and the finger was considerably swollen. Mr. Bond ordered her boracic fomentations, but she did not experience much relief from this, so was admitted to hospital on the evening of the following day. On examination, the finger was found to be acutely painful, and there was much general swelling, especially in the region of the pulp over the ungual phalanx. Shortly after admission, Mr. Lewis (who then had charge of the case) made an incision into the pulp, which, he states, did not give exit to any pus, and, on careful examination, none could be found. Temperature at time of operation, 101° F. Anæsthetic, nitrous oxide. Patient experienced some relief after the operation, but the temperature on the two following days ranged between 100° F. and 102·2° F. On December 30th, as it was evident that the inflammatory process was extending up the finger, Mr. Lewis made an incision into the subcutaneous tissues on the palmar aspect, over the proximal phalanx. Temperature for two following days ranged between 99·2° F. and 101·8° F. Ordered to have the boracic acid bath. *January 2nd,* 1893.—Finger examined carefully to-day. I found grating in the 2nd and 3rd inter-phalangeal joints. Free discharge from proximal incision. *January 6th.*—As the pyrexia showed no signs of abating and there was fluctuation on the dorsum of the hand, especially over the metacarpo-phalangeal joint of the index finger, and the patient complained of much pain in the palm, with free discharge of pus, it was thought advisable to examine the condition of the palm, &c., under an anæsthetic, so ether was administered, and the hand having been thoroughly carbolised, I made an incision in the situation on the dorsum above

indicated. A large amount of pus was evacuated. A probe was then passed into the opening remaining after the second operation; it was found to enter a sinus which extended to a level just above the upper border of the anterior annular ligament. I then enlarged the incision into the palm, and made another above the annular ligament. The cavities were then thoroughly scraped with a sharp spoon and a drainage tube inserted from the wrist wound to that in the palm. Freely irrigated with 1 in 40 carbolic. Patient went on very well after the operation, except that she complained of some tingling sensation along the distribution of the median nerve. This was probably explained by the pressure of the drainage tube at the wrist incision, which was just internal to the flexor carpi radialis tendon. A smaller tube was substituted. Arm kept in boracic bath. *January 16th.*—To-day, as there was some swelling in the upper part of the forearm, profuse discharge from the wound at the wrist and continued pyrexia, the patient was placed under ether. I then introduced a probe through the opening at the wrist and found that it entered a sinus which extended up the forearm to near the elbow joint. An incision was then made anteriorly about 1½ inches below the bend of the elbow, and the probe passed between the two openings. Drainage tube inserted at either end. A very large amount of thick greenish pus escaped. The sinus was then syringed out with corrosive sublimate solution (1 in 3,000). Strictest antiseptic precautions adopted. Arm put in hot perchloride bath (1 in 5,000) for one hour shortly after the operation. Up to the time of this operation the patient was in a very critical condition indeed. Continued pyrexia, and she was rapidly losing flesh. One great thing in her favour was that she took her nourishment well. A preparation which I found most valuable was Denæyere's meat peptone. On January 18th, the temperature was quite at the normal line, and it did not again reach above it. The drainage tubes were all removed by the 23rd of January, and on February 2nd, the arm and hand were being regularly massaged. From the time of the last operation the patient made an uninterrupted recovery. I have lately seen this patient (March, 1893) who has been for some time at Eastbourne. There is some slight stiffness of the last two joints of the finger, which will probably diminish with constant use. General health excellent.

Palmar Abscess.

II. Hannah J—, æt. 24, single, assistant housekeeper. Admitted to Chadwick Ward under Mr. Macnamara's care on November 5th, 1892, with a palmar abscess and whitlow. A fortnight before admission she noticed stiffness on movement of the 2nd and 3rd fingers of the right hand, which subsequently became swollen and painful. Fingers first affected. Patient saw a medical man who made a puncture into the palmar surface of the finger over the 2nd phalanx. On the following day patient noticed pain and swelling in palm of hand rapidly became worse. The note on admission is:—Patient evidently suffering acute pain. There is extensive swelling of the hand and fingers (especially 2nd and 3rd), small incisions on the palmar and dorsal aspects have been made, but there is obviously pent up pus in the palm and fingers. Temperature 103·4° F. States that she does not remember ever having any scratch or wound on the finger. Shortly after admission patient was anæsthetised and free incisions were made, opening up the tendon sheaths, over the palmar aspect of the 2nd and 3rd metacarpal bones, and were carried into the corresponding fingers. Dorsal incisions were also made, and a drainage tube inserted through the hand. Metacarpo-phalangeal joints free. Hand placed in a boracic bath. *November 27th.*—Patient is much relieved since the operation; there is now very free discharge. Temperature 99·6° F. *December 10th.*—Has had hand in boracic bath until yesterday. The wounds are rapidly healing, patient has improved very much in her general health since admission. Gets up daily. Movement of joints free; no discharge; boracic fomentations still applied. Tube removed on November 29th. *December 18th.*—Wounds have healed, hand somewhat stiff. Passive movement daily. *December 30th.*—Patient has only been kept in on account of the stiffness of the fingers. Massaged daily. Movement considerably improved. *January 5th.*—Patient left the hospital to-day with very good movement of the hand and fingers.

Palmar Abscess—Amputation of Forearm.

III. Julia C—, æt. 29, married. Admitted to Chadwick Ward under Mr. Spencer's care on August 8th, 1892, with thecal

abscess of the right index finger. On August 5th patient was washing, and a pin stuck in the pulp of the finger, over the terminal phalanx. On the following day the finger "began to gather," and the patient saw a doctor, who "lanced" it, and got a little matter away. The day after patient again had the finger "pricked" in three places. Five days after the accident she applied at the hospital, and was admitted. There was then marked œdema over the dorsum of the hand, which was extremely painful; slight discharge from small punctured wound over pulp of index finger of the right hand; some swelling of palm of hand, pain at elbow, and axilla. States that she has always enjoyed most excellent health. Mr. Spencer ordered the arm to be placed in a hot boracic acid bath. The next day but one after admission patient's temperature (which had been about 102° F.) rose at 5 P.M. to 103° F., and there was evidence of pus collecting in the palm, so she was anæsthetised and an incision made in the palm over the metacarpal bone of the index finger. About half an ounce of pus was evacuated. Hand placed in boracic bath subsequently. Temperature at 11 P.M. on evening of day of operation 105° F. During the four following days the hand and forearm were kept in a hot boracic bath, but notwithstanding this it was evident that it was useless to try and save the finger, as it was rapidly becoming gangrenous; so on August 15th patient was placed under ether, and the finger amputated at the metacarpo-phalangeal joint. All the tissues were found in a sloughy condition, and much offensive pus came away. A long sinus leading up to the wrist was discovered, so an incision was made above the annular ligament, and a drainage tube inserted from this to the palmar opening. A drainage tube was also inserted on the dorsal aspect. Arm and hand kept in boracic bath. The temperature did not fall after the operation, but remained about 102·4° F. to 103·6° F., and on the following day patient complained of the right leg being painful. On examination there was found to be swelling on the outer aspect of the right leg, no redness, and fluctuation could not be detected—an exploring syringe was inserted, but no pus discovered. Fomentations applied. Patient remained much in the same condition for the next few days, the pyrexia still continuing. On August 22nd a large abscess was opened on the outer side of the

right leg. For the next 8 days the temperature was of the hectic type, running up at night to 102° F. to 103° F. Arm and leg appear in same condition. On August 31st, at 7 P.M., the temperature rose to 105° F., and at 8 P.M. on the same day patient had a rigor lasting ten minutes. She was now getting in an exhausted state, and there was profuse suppuration evidently extending up the arm, so the patient consented to amputation, which was accordingly performed on the following day (September 1st). The flaps were at first made about the middle of the forearm, but when the muscles were cut into it was found that they were bathed with pus, so it was deemed advisable to amputate at the elbow joint. This was done by a long anterior flap. There was very little hæmorrhage, and she stood the operation well. *September 2nd.*—Has had a good night. Temperature is lower, but still ranges between 101° F. and 102·4° F. Wound dressed in the evening as the patient complained of pain, and the temperature had risen to 102·4° F. A small abscess on the ankle joint opened and drained. *September 3rd.*—Patient in much the same condition. Taking food and stimulant well. Is on champagne and hst. quininæ. No enlargement of or pain in any of the joints. Free discharge from wounds of left foot. *September 4th.*—Patient very much better this morning. Stump dressed; very slight discharge; flaps in good condition. Temperature rose at 7 P.M. to 105·6° F. *September 5th.*—Wound dressed; looking well. Temperature lower. General improvement continues. For the next few days patient remained practically in the same condition, the temperature was distinctly lower than previously, ranging between 101° F. and 102·6° F. The arm was dressed daily. *September 17th.*—Patient now sits up in bed daily. Flaps look very healthy. Wounds in leg have almost completely healed. Has no pain whatever. *October 2nd.*—Has been up and about for the last few days. Wound has healed. Is very well in her general health. Appetite good. Temperature has been at the normal line for some days. *October 5th.*—Patient left the hospital to-day for a convalescent home. Was seen in December after return—good stump, patient in excellent health.

Whitlow.

IV. James L—, æt. 52, labourer. Admitted on August 16th,

1892, with a thecal abscess of the thumb. There was marked œdema of the dorsum of the hand. Patient gave the history of having pricked his finger a day or two previously. There was no lymphangitis extending up the arm, but the patient complained of pain in the region of the elbow and axilla. Temperature 100° F. Immediately after admission patient was anæsthetised and deep incisions were made on the palmar and dorsal aspects of the thumb. Palmar incision opened up the tendon sheath; very free discharge of pus. Hand ordered to be placed in a boracic acid bath. *August 17th.*—Patient has been very much relieved by the incisions; there is very free discharge from the palmar wound; pain at elbow and axilla less; bath continued. *August 22nd.*—Temperature has now come down almost to the normal line. No pain whatever now; palmar wound still discharges; bath discontinued and boracic fomentations applied. *August 24th.*—Dry dressing applied; wounds healing rapidly. *August 29th.*—Patient discharged to-day to attend in surgery; wounds almost healed. Temperature normal.

V. Alfred F—, æt. 22, gas stoker. Admitted to St. Luke's Ward under Mr. Macnamara's care on November 9th, 1892, with swelling of right hand, extensive œdema of the dorsum, acute pain. Attended St. Thomas's Hospital before admission here. Temperature 102° F. The pain was excessive and extended for some distance up the arm. No evidence or history of any wound. It was obvious that there was a large amount of pus below the palmar fascia, so immediately after admission patient was placed under an anæsthetic and deep incisions were made over the palmar aspect of the 2nd and 3rd metacarpal bones; the pus extended beneath the tendons. Two incisions were also made on the dorsum of the hand; drainage tubes inserted at palmar openings. The temperature fell suddenly to the normal line after the operation. Hand kept in a boracic bath. *November 16th.*—Drainage tubes removed to-day; hand is looking very well indeed; no pain and scarcely any discharge. *November 19th.*—Bath discontinued; boracic fomentations applied. *November 21st.*—Dry dressing. *November 24th*—Patient discharged to-day, wounds have completely healed.

VI. Eliza H—, æt. 7. Admitted to Chadwick Ward under Mr. Macnamara's care on October 3rd, 1892, with an abscess in the palm of the left hand. Patient had a punctured wound of

the middle finger a few days previous to admission. The hand was much swollen, painful; lymphangitis extending as far as the supra-condylar gland. Temperature 102° F. Shortly after admission patient was anæsthetised, and an incision made along the palmar aspect of the middle finger and extending into the palm; a large quantity of pus was evacuated; drainage tube inserted; arm and hand kept in boracic bath. *October 8th.*—Has been kept in bath since the operation; very little discharge; hand is much less swollen. Temperature has been normal since the day of operation. *October 12th.*—Hand removed from bath yesterday; discharge of a purulent character noticed from right ear this morning; temperature has risen to 103° F.; does not complain in any way; ear syringed with boracic lotion, afterwards dried well with iodoform probe; iodoform crystals dusted over external ear, and the latter covered with antiseptic wool; dressed twice daily. The temperature for the next two days remained high (103° F. and 104° F., and the hand looked as if there was some collection of pus, so it was replaced in the boracic bath, with the result that the temperature rapidly came down to the normal line, and remained there until her discharge from hospital. *October 29th.*—Discharge from ear has now completely stopped; wound of hand almost closed; dry dressing now used. *November 11th.*—Patient has been up for some days; has good movement of the hand and fingers. Left the hospital to-day for a convalescent home.

VII. Charles K—, æt. 15, sweet-stuff maker. Admitted July 9th, 1892, with abscess in the palm of the left hand. Two weeks prior to admission patient noticed "swelling in palm of hand and also of the middle finger." On the third day the pain and tenderness prevented him from working, and on the sixth day he attended Charing Cross Hospital, where the finger was incised. On admission to St. Luke Ward it was evident that there was a large amount of pus pent up beneath the palmar fascia, so patient was anæsthetised, and the previous incisions deepened and extended into palm; free exit of pus. Drainage tubes inserted and hand placed in boracic bath. Bare bone was felt, on passing a probe, in connection with the proximal phalanx of the middle finger. *July 14th.*—Hand has been kept in boracic bath. There is very free discharge this morning. Flexor tendons came away as a slough this morning.

August 3rd.—Scarcely any discharge now; no pain; wound dressed with iodoform emulsion and dry dressing. *August 17th.*—Patient discharged; wound healed; finger stiff. This patient was readmitted on September 5th, as he found that the finger being quite stiff was useless and in the way, so he wished for amputation. On September 8th patient was anæsthetised. Amputation of the finger was performed, a long flap being taken from the dorsum, as the skin on the palmar aspect was very unhealthy. Semicircular incision made in palm. Dorsal flap stitched to palmar with catgut and horsehair. *September 15th.*—Wound has now almost completely healed; flaps look remarkably well. Stitches removed. *September 21st.*—Patient discharged from hospital. Good cicatrix entirely in palm.

DISEASES OF THE ALIMENTARY SYSTEM.

Three cases of epithelioma of the tongue. In two of these almost the entire half of the organ was removed—one of these patients has lately been in the hospital with secondary affection of the cervical glands. The third case was in too advanced a stage to attempt removal, but the lingual artery on either side was ligatured. One case of myeloid sarcoma of the lower jaw. Four cases of intestinal obstruction—two of these were due to malignant disease—one to fæcal impaction and the other was probably of perityphlitic origin. Some other cases of intestinal obstruction will be found reported amongst the herniæ.

Gumma in front of angle of lower jaw on right side.

Jane P—, æt. 33, needlewoman. Admitted under Mr. Macnamara's care on October 17th, 1892. *Previous history.*—Quite well until 15 months prior to admission, when she noticed "lumps" in the right side of her neck, which she attributed to cold. These have remained since, but are smaller at times. A month before admission noticed swelling at lower part of the right side of face, which gradually became larger and was very painful. No definite history of syphilis can be obtained. Complained of gradually diminishing power of vision. States that her sight has never been good. P.C.—There is a hard tumour situated over the angle of the inferior maxilla on the right side. Slightly movable and painful on manipu-

lation. There is considerable inflammation of the overlying skin, which is movable over the tumour. On examination from inside the mouth, tumour appears to be attached to the periosteum. Patient has lost almost all her teeth and the alveolar border is much absorbed. There is enlargement of the adjacent submaxillary and cervical lymphatic glands. Opthalmoscopic examination reveals extensive choroiditis in both eyes; large patches of choroidal atrophy with much deposit of pigment, especially on the left side. Discs; blurred margins, and in a condition of neuritis. Commencing striæ in the lens. Heart and lungs normal. Abdomen, nil. Patient appears in a very debilitated state of health. On the day of admission she was put on hydrarg cum creta gr. i. twice daily, and hst. potass. iodid. grs. x. three times daily. The latter was gradually increased to grs. xxx. Patient never presented any symptoms of iodism. On October 24th the tumour appeared much smaller in size and less painful; four days later it again enlarged and became more painful than on admission. Fomentations were applied, and on November 10th a small abscess was opened in this position. From this time the patient made an uninterrupted recovery, the wound rapidly healed, and she left the hospital shortly afterwards, the tumour having entirely disappeared. Her sight was not apparently affected by the treatment. Temperature almost normal throughout. This patient was seen again in December after her return from a convalescent home. No swelling could be felt on the jaw.

Myeloid Epulis.

Gertrude H—, æt. 20, single, laundry maid. Admitted to Chadwick Ward on August 12th, 1892. States that about 18 months prior to admission she noticed a "small gumboil" on the right side in the position of the present tumour; she consulted a medical man, who "tied something," which subsequently dropped off. States that the present tumour has been of very slow growth; has not had any pain nor has there been any hæmorrhage. Has always been healthy. No history of any prevailing disease in the members of her family. The inferior maxilla between the right second molar and canine tooth is the seat of a growth, somewhat hard; not movable apart from the jaw; no pain on movement. Slight brownish colour. The

tumour occupies either side of the bone, but the finger can be got below to a healthy surface of gum. No enlargement of the submaxillary lymphatic glands. *August 16th.*—This afternoon Mr. Spencer removed the tumour with the bone forceps, leaving a margin of bone beneath. The wound was plugged with iodoform and cyanide gauze and a four-tailed bandage applied. The plug was removed on the following day. Wound looking well. There has been very little hæmorrhage. The mouth was kept frequently washed with boracic lotion and the wound was dusted with iodoform. Patient left the hospital on August 26th. Temperature never rose above the normal line.

Epithelioma of Tongue.

George N—, æt. 47, greengrocer, was admitted to St. Luke Ward under Mr. Macnamara's care on October 4th, 1892; was quite well three months ago; he then "noticed some smarting of the right side of the tongue," but did not think it anything serious. Shortly after this a small ulcer appeared on the tongue. At this time he consulted a medical man, who applied some caustic (? sulphate of copper). The ulcer gradually got larger, and he experienced difficulty in swallowing; has had carious teeth on the right side, which have dropped out. The ulcer appeared about a year after the loss of the teeth; has been a heavy smoker, and has been accustomed to use a blow pipe on the right side; has been accustomed to drink heavily; experienced very little pain in tongue, but has in the other distribution of the 5th nerve. No definite specific history, but there are patches of chronic superficial glossitis on the dorsum of the tongue; states that his mother died of cancer; no history of any prevailing disease in family. *Present condition.*—There is a large indurated ulcer on the right anterior part of the dorsum of the tongue, irregular, edges everted, no bleeding from surface, no enlargement to be felt of the submaxillary lymphatic glands. The cervical lymphatic glands in front of the right sterno-mastoid muscle are enlarged, and painful; tongue free from floor of mouth. On October 12th Mr. Macnamara removed the anterior half of the tongue with scissors. There was very little trouble from hæmorrhage; lingual arteries tied with stout silk ligatures; stump freely dusted with iodoform. *October 15th.*—Patient has not had a bad symptom since the operation; no food

by mouth for first 24 hours; brandy and beef tea enema only; takes fluid nourishment well now; mouth constantly washed with boracic lotion, and tongue dusted with iodoform. *October 20th.*—Patient up for first time yesterday; stump looking very well; complains of slight headache. *October 28th.*—Discharged today; articulation good.

Edward G—, æt. 44, valet. Admitted to St. Luke Ward under Mr. Spencer's care on September 6th, 1892. This patient applied at the Surgery on the morning of the 6th of September, complaining of a "sore tongue," which he stated had only been troubling him for about two months. On examination an ulcer about the size of a shilling was found on the left side of the dorsum of the tongue, midway between the tip and base. There is a fissure at this spot, about half an inch in length, extending obliquely upwards and backwards on the dorsum. The tongue around the ulcer is indurated and painful to the touch. No bleeding. Movements of tongue are much restricted. No enlarged lymphatic glands to be felt in the submaxillary region. Patient states that the tongue has only occasioned him any serious annoyance during the past two months, but for about the last twelve months he has noticed that the tongue became painful at intervals; being in the habit of smoking (chiefly a pipe—not a clay) rather much, he considered that this was the cause of it, and at such times he used to cease from smoking almost entirely. Soreness of tongue then disappeared for a time. Patient attributed the increased painfulness during the last two months to the irritation caused by the sharp edge of a carious tooth; he had the tooth removed about a month ago, but the ulceration and painfulness have not disappeared since then. Patient states that he has always enjoyed very good health; has never had syphilis. No history of cancer or tumours in family. Given iodide of potash grs. x. three times daily. Teeth and mouth constantly washed with Condy's fluid. *September 14th.*—This afternoon Mr. Spencer removed the left half of the tongue by Whitehead's method. The tongue was drawn forwards and kept in position by silk ligatures passed through its substance; it was then split down the septum, and the left half removed well behind the disease by small snips with the scissors. There was no difficulty experienced in securing the arteries, and hæmorrhage

was very slight. Iodoform powder was then freely dusted over the stump. At 7 P.M. temperature had reached 100° and continued at this point until midnight, when it fell to 99·2° F. Mouth frequently washed with Condy's fluid and iodoform dusted over base. No food by mouth for first 12 hours. *September 17th.*—Patient doing very well; temperature normal. Has been up yesterday and to-day. Is able to speak with tolerable distinctness. *September 20th.*—Discharged from hospital to-day. This patient has since been readmitted with recurrence of the growth in the cervical glands on the left side. Mr. Spencer endeavoured to remove them, but was obliged to leave some, which were intimately adherent to the carotid sheath. Wound healed up well.

Epithelioma of Tongue (Involving Jaw)—Hæmorrhage—Ligature of both Linguals.

James K—, æt. 47, bootmaker. Admitted under Mr. Spencer's care on September 7th, 1892, with an epithelioma of the tongue which had extended to the jaw. Was quite well nine months ago, shortly after this he noticed ulcers on the under surface of the tongue on the left side. Noticed "swelling" beneath jaw about a month after first onset. Two months ago noticed that "front part of jaw had become loose." Patient has been a soldier in the Indian Army. Lived in India 7 years. Had "fever and ague." Some history of "chancre, but nothing definite of syphilis." Good health otherwise. Has been a heavy smoker, chiefly using a pipe. Has drunk freely of spirits. One sister died with "cancer of breast." No history of any disease prevailing in family. There is free salivation, which is frequently tinged with blood; does not suffer much pain. Discharge containing pus. The under surface of the tongue is the seat of an ulcer with everted edges, freely discharging. Structures around indurated. Tongue is bound down to jaw at anterior part. Front teeth in lower jaw loose, others carious. Submaxillary lymphatic glands much enlarged and painful. The cervical region is a mass of new growth. Ulceration commencing just below lower line on left side. Appears very feeble in general health. Mouth washed with Condy's fluid and dusted with iodoform. As it was obviously not possible to remove the growth, and there had been several attacks of hæmorrhage, Mr. Spencer on September 14th

ligatured the lingual arteries on either side. The usual incisions were made. It was only after the greatest difficulty that the arteries could be found, as the tissues were so much matted together. The wound healed by first intention, and patient left for the infirmary a fortnight after the operation. No further hæmorrhages have occurred.

Ephithelioma of Rectum.—Inguinal Colotomy.

William S—, æt. 67, formerly a policeman. Admitted on September 23rd, 1892, to Mark Ward under Mr. Spencer's care with incontinence of fæces, and abscesses in both gluteal regions. The latter were opened under an anæsthetic, and the rectum digitally examined. It was found to be the seat of a malignant growth extending higher than the finger could reach; four plum stones, three monocotyledonous leaves rolled up, and two calcareous masses were removed. Very hard, rectum adherent to surrounding structures; discharge of blood and pus; slight enlargement of the inguinal glands. Has been complaining of pain and discharge for about six months. A portion of the growth was removed, and found to be a columnar epithelioma. On October 4th Mr. Spencer made an incision, just internal to the left anterior superior iliac spine about 2 inches in extent. The sigmoid flexure was drawn out through the wound, and a glass rod passed through the meso-colon, thus keeping the gut in position. The parietal peritoneum was not stitched to the skin. Stitches were then put at either angle of the wound, and the latter dressed with protective and iodoform wool. Bowel not opened. *October 7th.*—Bowel opened to-day with actual cautery. No discharge of fæces at present. *October 9th.*—The spur was partly divided to-day with the actual cautery; glass rod drawn out. Large amount of mucous discharge. No fæces through wound or anus. *October 10th.*—Fæculent discharge for first time to-day. *October 13th.*—Discharges freely now. Patient has much improved since admission; wears an india-rubber pad. Left the hospital November 3rd. Lately seen in good health, and much relieved.

Malignant Stricture of Rectum.

Matilda S—, æt. 45, single, employed at needlework, was

admitted on July 19th under Mr. Macnamara to Chadwick Ward. She was quite well until 12 months prior to admission, when she had "pain in the back," and at the same time noticed that she passed blood with her motions. This has continued on and off since, but she states that during the last 4 months the pain has been getting much worse, and there has been a discharge of muco-purulent fluid. Has suffered with constipation alternating with diarrhœa. Motions flattened, excessive pain during their passage. Has been losing flesh for the last 12 months, and very rapidly during the last 4. Was in this hospital 3 years ago under Mr. Davy with "disease of left knee-joint." No history of syphilis. Patient has a somewhat anxious expression, but not the typical cancerous cachexia. Always has a certain amount of pain, very great on passing her motions. On digital examination (which is difficult to make on account of the extreme pain caused) the rectum is found to be the seat of a hard growth evidently ulcerating, this extends beyond the reach of the finger, and is quite immovable. The whole of the wall of the bowel is implicated in the growth. Has at times difficulty in passing water, and at others she has incontinence. Urine sometimes contains blood. There is œdema of the legs and feet. *Heart.*—Systolic bruit at apex, conducted into axilla. Lungs, nil. *Abdomen.*—Resonant all over right side. Pain on palpation in left iliac and lumbar regions; no definite tumour can be felt. Patient suffered so much pain at night that it was necessary to give her morphia hypodermically. Inguinal colotomy was proposed, but patient refused operation, so she was transferred to the infirmary.

Case of Perityphlitis.

Gerard P—, æt. 25, clerk. Admitted to St. Luke Ward under Mr. Macnamara's care on December 24th, 1892. Was quite well up till December 22nd, when he noticed pain in the right iliac region, which became very severe at night. Patient admitted at 9 a.m. Has not vomited since, but he states that the vomiting was persistent between 5 p.m. on 23rd until 9 a.m. on 24th. No abdominal distension. Bowels moved on morning of 22nd, not since. States that he has passed flatus. Has not been subject to constipation. Does not appear in a collapsed condition.

Pulse good. No protrusion in any of the situations of herniæ. Complains of great pain on palpation in right iliac region. No abdominal tumour can be felt. Mr. Macnamara saw the case almost immediately after admission, and ordered:—Hydrarg subchlor. grs. iv.; extr. belladonnæ gr. ¼; ft. pil. i.; one pill to be taken every two hours. Not more than three to be given; also belladonna fomentations to be applied locally. *December* 25*th.*—Patient appears very much better this morning; has vomited three times during the night, of a bilious character. Bowels moved this afternoon; liquid motions; slightly tinged with blood. Pain is very much better. Taking milk well. Temperature at 7 to-night is 102·4° F. *December* 27*th.*—In much the same condition; bowels have not been open since; vomited once yesterday, not again; pil hydrarg. subchlor. gr. iv. ordered. *December* 28*th.*—Bowels freely open yesterday evening. Has very slight pain. *December* 30*th.*—Bowels open yesterday; motions formed. Complains again of the pain in the right iliac region. General swelling noticed in same position; resonant on percussion. Temperature still remains high, but there is a tendency to fall. *January* 1*st*, 1893.—Bowels have been open this morning; loose; no blood. Complains of great thirst. Temperature at 7 p.m. last night 102·6° F. Swelling in right iliac fossa is more prominent; markedly resonant. *January* 3*rd.*—Had a marked fall of temperature last night. The swelling in the iliac fossa has diminished remarkably, and the patient appears very much better. From this time the patient made an uninterrupted recovery. The temperature remained normal. The note made on January 19th states that he had "absolutely no tenderness. Is on fish diet, and gets up daily." Discharged from hospital January 28th, 1893.

Intestinal Obstruction (Fæcal Impaction).

Sarah A—, æt. 62, married. Admitted to Queen Ann's Ward under Mr. Macnamara's care on October 24th, 1892, in a somewhat collapsed condition, complaining of absolute constipation for the last four days, during which time she had frequently vomited. Shortly after admission patient vomited, not fæcal. Gives a history of chronic constipation; no discharge from rectum was noticed, nor any alteration in the shape of the motions. Had not vomited before. Complains of great pain

and tenderness in the region of the transverse colon, which, together with the regions of the ascending and descending colons, are dull on percussion. No tumour can be felt on abdominal palpation, nor can anything abnormal be discovered on examination per rectum; no abdominal distension. Temperature normal. Patient was given a simple enema, and ordered a pill every 4 hours until four had been given, of calomel gr. iii., with half a grain of extr. of belladonna. *October 25th.*—Patient is very much better this morning. Bowels have acted well. Slight jaundice. On November 4th she was ordered extr. cascaræ sagradæ liq. ʒi. every morning, as there was a great tendency to constipation. *November 8th.*—Patient left the hospital to-day. Has completely recovered. Bowels acting regularly.

DISEASES OF THE BREAST.

One case of fibro-adenoma; two cases of scirrhus, one patient died in hospital, and numerous secondary growths were found post-mortem; one case of tubercular disease of the male breast.

Fibro-adenoma of Mamma.

Jane R—, æt. 49, married. Admitted to Chadwick Ward under Mr. Macnamara's care on December 29th, 1892, complaining of "tumour in breast." Was quite well until about 8 years ago, when she noticed a small lump in the right breast about the size of a plum stone. Had no pain. Has been gradually getting larger, more quickly during the last twelve months. Does not remember ever having had any injury to the breast. Has four children, last 22 years ago. Menstruation always regular. No syphilitic history. In upper and outer part of the right breast is a hard tumour, about the size of a small orange, freely moveable over the pectoralis major muscle. Not moveable apart from the gland; skin not adherent; nipple normal; no enlargement of the axillary glands. Patient does not complain of any pain on manipulation of the tumour. *January 4th.*—Tumour removed by a linear incision; was not adherent anywhere. On examination found to be a fibro-adenoma. Horsehair sutures used for uniting skin incision; no drainage tube used; wound dressed with the double cyanide gauze. *January 13th.*—Wound dressed; stitches removed. *January 18th.*—Left the hospital to-day. Temperature normal throughout.

Tubercular Disease of Breast.

Frank M—, æt. 31, labourer. Admitted on September 20th to St. Luke Ward under Mr. Macnamara's care. States that six months ago noticed "lump" just internal to the left nipple; no pain, quite moveable. This remained in much the same condition for about four months, since which time it has grown more rapidly. Now complains of some pain on extension of the arm at the shoulder joint. No discharge from nipple. States that in January last he had a blow from a bar of iron in this situation. No definite history of syphilis. Has always been healthy. On admission there was a hard tumour about the size of an egg, extending from about the fifth to the eighth rib in the nipple line, immoveable on inner side, moveable on outer. Skin not adherent; nipple normal; no pain on manipulation; slight glandular enlargement in axilla; heart and lungs normal; no evidence of tubercular disease. Patient was put upon potass. iodod. grs. v. three times daily, and hyd. cum creta grs. ii. twice daily. No appreciable effect upon the tumour, so on September 28th Mr. Macnamara made an incision over the tumour, and dissected a considerable portion out. From macroscopical examination its appearance resembled a gumma. Patient was only in bed a day or two, as the wound healed rapidly; he left the hospital on October 18th. Microscopic examination showed this to be a case of tubercular disease of the breast. The specimen was shown at the Pathological Society. In vol. v., page 48, of the Westminster Hospital Reports will be found a case occurring in the female breast, recorded by Mr. Macnamara.*

Scirrhus.

Elizabeth F—, æt. 47, cook, unmarried. Admitted under Mr. Macnamara with "tumour in left breast" on October 31st, 1892. Always enjoyed good health. No history of syphilis. No history of any disease prevailing in family. Hard growth at upper and outer part of left breast about the size of a walnut; painful, movable over deep structures. Skin adherent, nipple retracted. Axillary glands enlarged. Felt sharp, shooting pains in breast for two years, but has only noticed the tumour for six months. No history of any injury. On third day

* See case reported by Mr. Mackellar, *Lancet*, June 1st, 1889.

breast was removed by transverse elliptical incisions. Incision extended to axilla and glands dissected. Axillary vessels laid bare. Horsehair sutures used and a drainage tube inserted. Wound dressed with cyanide gauze and iodoform. Temperature reached 101° F. on the day after operation. Wound was dressed on the second day, when the drainage tube was removed, From this time the temperature remained at the normal line. A fortnight after the operation patient became very restless and was talking incoherently. Passed her urine and fæces in bed. On November 24th she was semi-comatose. There were no special signs of internal growths. No paralysis. Two days later patient was comatose, and she died suddenly.

Post-mortem Report. Vol. vii., p. 294.—Examination made 41 hours after death. Body much emaciated. On removing calvarium it is found that there are two deposits in the bones of the skull, one about the size of a sixpenny piece in left parietal, the other about the size of a threepenny piece in left orbital plate. The brain and membranes are normal. Numerous small secondary growths scattered all over the peritoneal surface. Liver 53½ ozs. Contains numerous large typical secondary deposits. In the right adrenal is a small secondary deposit. Numerous secondary deposits in ribs. The character of the growth is white firm umbilicated spheroidal masses. When cut into a little milky juice can be expressed.

Scirrhus of Breast.

Caroline P—, æt. 41, married. Admitted to Chadwick Ward under Mr. Macnamara's care on September 21st, 1892, complaining of "lump" in left breast. Was in the hospital six years ago when a growth was removed from the breast. Had not noticed anything the matter with the breast since the last operation until three weeks ago, when she had pain, and at the same time, she observed a small lump situated behind the nipple. States that it has been growing very rapidly. Has not had any injury since. Immediately behind, and to the inner side of the left nipple, there is a hard mass, freely moveable over the pectoralis major muscle, skin slightly adherent, nipple somewhat retracted, no discharge. Axillary glands cannot be felt to be enlarged, except one small one midway between the pectoralis major and the latissimus dorsi. States

that she has always been healthy with the exception of the breast. Habits temperate. Mother's sister died with "cancer of breast." No history of any prevailing disease in the members of her family. *September 28th.*—Amputation of the breast was performed in the usual manner this afternoon. Incision extended to axilla, and the latter cavity cleared of the glands. Drainage tube inserted and wound dressed with cyanoid gauze and iodoform. *October 1st.*—Wound dressed. Drainage tube removed. Scarcely any discharge. No pain. Temperature normal. *October 7th.*—Stitches removed this morning. Wound has completely healed. No pain. *October 16th.*—Patient left the hospital this afternoon for a convalescent home. The temperature never rose beyond the normal line.

DISEASES OF BONES AND JOINTS.

One case of chronic periostitis of ulna. Two cases of tubercular disease of the tarsus, in both of which an excellent result followed removal of the carious bone. One case of spinal caries, in which the operation advocated by Mr. Treves was performed for removal of any loose bone. One case of ostitis of head of tibia, which was trephined on the inner side, followed by complete relief from the pain. One case of exostosis of the tibia. One case of loose cartilage in the knee-joint, and one of tubercular disease of the knee, in which excision of the joint was performed with an excellent result.

Chronic Periostitis of Ulna.

Elizabeth B—, æt. 17. Admitted to Chadwick Ward under Mr. Macnamara's care on November 22nd, 1892. Was quite well until 10 months prior to admission, when she knocked her right forearm. Immediately after this she noticed pain in the arm, which has continued on and off since. Three months later the forearm began to enlarge, and she noticed considerable pain on making any movement. States that the arm has increased in size rapidly lately and she has had more pain, especially during the last month. Has not noticed her general health affected in any way. Has always been healthy. States that she has been under treatment at the Middlesex Hospital for some affection of the left eye. Interstitial keratitis. Scarlet fever 12 years ago. Family history good. No history of any disease prevailing in

the members of her family. Patient is somewhat anæmic. Eyes clear. Bridge of nose flattened. Lateral incisors somewhat notched, but teeth are not typical. The upper part of the right forearm is the seat of a regular enlargement—hard and immoveable skin not adherent. No evidence of fluctuation. Tumour connected with ulna; extends up as far as the olecranon process; pronation and supination free; some pain on manipulation, flexion and extension of elbow good. Measurement round greatest circumference 11 inches. No enlargement of the epicondylar or axillary glands. *November 24th.*—Patient was put upon one grain of the grey powder twice daily, and 15 grains of the iodide of potash three times daily. The latter was on November 29th increased to 30 grains. Patient was kept on this dose until December 16th, when it was reduced to 20 grains. During this period she remained in bed. On December the 9th the measurement of the arm was about a quarter of an inch less than on admission. Only slight pain. The tumour gradually diminished in size, and on December 27th there was a difference of one inch in the circumference and she had no pain whatever. *January 10th*, 1893.—Patient left the hospital to-day, tumour gradually diminishing in size; difference of about $\frac{1}{8}$ of an inch since measurement on the 27th.

Tubercular Disease of Tarsus.

Frank O—, æt. 17. Admitted to St. Luke Ward on August 19th, 1892, with swelling on the dorsum of the right foot. Was quite unable to walk upon it. Patient did not notice anything wrong with his foot until about 12 months ago, when he observed it to be slightly swollen, and he suffered pain on walking. He does not remember having injured his foot at any time. The foot was painful but not much swollen during the first few months, but about 7 months ago an abscess formed and soon afterwards broke, leaving a sinus opening on the dorsum of the foot which has not closed up since. In April, patient was at the Sea Bathing Infirmary at Margate, and whilst there he states that another abscess formed which was opened on the outer side of the foot. Since his return from Margate an abscess broke on the inner side of the foot. On admission there were three different openings, the sinuses from which communicated with one another. Carious bone could be felt with the probe. Patient has the "tubercular

aspect." Had an abscess in left supraclavicular region 2 years ago. Until the abscesses mentioned above were noticed patient states he had enjoyed good health. There is nothing in the history of the patient's family to point to the existence of the tubercular diathesis. All members of family healthy. Mother dead. Cause of death? On August 25th patient was anæsthetised, and Mr. Spencer opened up the sinuses. The bones were found to be extensively diseased. The scaphoid, cuboid, and cuneiform bones were removed, being in a soft carious, condition. The astragalus, or calcis and bases of the metatarsal bones seemed healthy, and were accordingly left untouched. The wounds were then thoroughly irrigated, dressed with iodoform, and the foot placed within back and side splints. There was very little hæmorrhage during the operation. Patient passed a rather restless night, but the temperature was not much raised, having reached 100° F. as a maximum. *August 29th.*—Patient has been doing very well since the operation. Temperature keeps good, having been at the normal line the whole time. Wound dressed this morning, looks healthy. Scarcely any discharge. *September 7th.*—Patient continues very well. Wound dressed every second day. Very little discharge. Temperature normal. *September 19th.*—Wound healing rapidly. Feels well and comfortable. Temperature continues normal. Sleeps well. *October 4th.*—Left the hospital today for a convalescent home. The foot and lower part of the leg has been put up in plaster of Paris. Wound completely healed. This patient was seen again on November 11th, after his return from the country. He was looking remarkably well. There was slight discharge from the wound, but this rapidly cleared up with rest. Plaster of Paris was then reapplied, and patient discharged. Has been doing well since. Is now able to get about on the foot.

Tubercular Disease of Tarsus.

Selina B—, æt. 24, servant. Admitted to Chadwick Ward under Mr. Macnamara's care, on October 6th, 1892, complaining of "pain in left foot." States that her foot has been swollen for the last five or six months, but she had not suffered pain until about three weeks ago, when she noticed that owing to the pain, she was unable to walk upon the foot; states that she does not

remember ever having had any injury to the foot; has had "enlargement of the glands" for the last nine years; very deaf for last eight years. With the exception of her deafness, and abscesses in her neck, she has not suffered in any way. No history of any prevailing disease in the members of her family. Complains of pain in left foot, which is considerably swollen, and very tender on any manipulation, especially on the scaphoid, internal cuneiform, and base of first metatarsal bones. There is redness of the skin; some grating can be detected, no sinuses, temperature normal. Leg and foot put up in splint, kept in position by plaster of Paris; inner part of foot over inflamed area left exposed. *October 11th.*—Patient still has much pain in the foot; does not sleep at all well at night. *October 19th.*—This afternoon patient was anæsthetised, and after the foot had been thoroughly antisepticised, Mr. Macnamara made an incision over the inflamed area. A large amount of soft, broken down material, from the above-mentioned bones, was removed, and the surrounding structures thoroughly scraped with a sharp spoon; the cavity freely irrigated. Wound dressed with boracic acid powder, cyanide gauze, and iodoform. Plaster of Paris splint reapplied; window cut for wound. This patient made an uninterrupted recovery, the wound healing rapidly; temperature normal throughout; left the hospital two months after admission.

Caries of Spine.

Arthur C—, æt. 9, schoolboy. Admitted to St. Luke Ward on July 12th, 1892, with a discharging sinus on the left side of the spine, just beneath the lower border of the last rib. Patient had been in the hospital in April of this year, with a psoas abscess, which was drained by a lumbar incision. On the opposite side and in the same position is a "fluctuating swelling," quite painless. Patient states that he does not know how long the swelling has been there. Has no pain whatever when in bed, but after walking about for a time states that his back "hurts a little." Temperature on admission, 101·4°; heart and lungs normal; urine acid, 1020; no albumen. On August 3rd patient was placed under chloroform, and the sinus in the situation of the old wound was enlarged by Mr. Spencer. The latissimus dorsi, part of the internal oblique, lumbar fascia, and quadratus lum-

borum muscles were divided. The sinus was found leading to the spine, and bare bone could be felt with the probe. A pair of large polypus forceps were introduced into the deep part of the wound, and a large portion of carious bone was removed from the bodies of two vertebræ. The intervertebral substance had disappeared. Cavity was scraped with a sharp spoon. There was very little hæmorrhage. Wound plugged with iodoform and gauze. On the following day patient seemed very collapsed, and he had been so during the night. Wound dressed with lot. acid. boric. At 7 p.m. on August 5th (second day after operation) temperature rose to 103·6° F., but after this the pyrexia gradually diminished, and the temperature was normal on the 7th. It remained at the normal line with one or two exceptions until patient was discharged, with the wound healed, on September 20th, 1892.

Ostitis.

Samuel F—, æt. 25, carman. Admitted to St. Luke Ward, under Mr. Macnamara's care, complaining of pain on movement of the left knee-joint. Patient states that his left knee was quite well five months ago. At this time he had a "fall over a case of wine." A week later, on getting up in the morning, he noticed that there was considerable swelling of the joint and some pain on movement. Pain not constant, worse at times, especially on walking. Occasionally feels sick with the pain. Has been in the Lambeth Infirmary for the last three months, where the knee was strapped. Has not worn a splint. Has been getting worse, both as regards the pain and the swelling. Pain severe at night. Has always been a healthy man. No history of syphilis or rheumatism. Mother died with "consumption." Other members of family healthy. There is subacute synovitis of the left knee-joint. Patient is quite able to flex and extend the joint. Painful on movement. Complains of pain on making the slighest pressure over the head of the tibia. No protrusion at any time in the neighbourhood of the joint. *December 1st.*—Patient anæsthetised and inner side of head of tibia trephined. A cavity was reached containing only a small quantity of pus. Cavity freely irrigated with warm carbolic lotion and wound dressed with cyanide gauze and iodoform. Horsehair sutures applied. This patient

made a rapid recovery. The stitches were removed on the eighth day, and the patient left the hospital without the least pain on December 17th.

Exostosis of Tibia.

Thomas G—, æt. 16, sailor. Admitted to St. Luke Ward, under Mr. Macnamara's care, on October 4th, 1892, complaining of pain in front of leg and swelling on inner side of upper part of leg. Was quite well until three months ago, when he noticed a "swelling" just below the knee on the inner side of the left leg. States that this was painful in the morning on awakening or when any pressure was made upon it. Has been employed as a sailor for the last eighteen months. In August, 1891, had a blow in the position of the present tumour. Has always been healthy. No history of syphilis. No history of any of the members of his family suffering in the same way. On the inner side of the left leg there is a hard tumour at the position of the tibial epiphysary line about the size of a plum stone. It is immovable, painful on manipulation. Skin not adherent. No appearance of the tumour being pedunculated. Inguinal and femoral glands can be felt, but are not abnormal. There is a difference of about a quarter of an inch in the circumference of the legs at the position of the tumour. *October 12th.*—Patient was anæsthetised and an incision made over the tumour; after division of the superficial structures a layer of cartilage was exposed. The base of the tumour was then cleansed and the latter removed. Very little hæmorrhage. *October 15th.*—Wound dressed for first time to-day, looks well. No discharge. *October 22nd.*—Patient now gets up daily. Sutures have been removed. *October 28th.*—Left the hospital to-day completely cured.

Loose Cartilage in Knee Joint.

George D—, æt. 25, glazier. Admitted August 12th, 1892, to St. Luke Ward under Mr. Spencer. Patient states that twelve months ago he sprained his knee; after this he found that he was unable to rise from the sitting position owing to extreme pain in the joint. Was in the Fulham Infirmary for about a fortnight, he then walked about, but was suddenly seized with the most acute pain, and the joint became locked.

In January last noticed "lump" at inner side of joint; this disappeared for a time, but reappeared shortly afterwards. States that when he is walking, the joint "gives under him," and a small swelling appears on the inner side. When patient pushes it in he is able to walk without pain. The diagnosis of a loose body in the joint was made. *August 17th.*—To-day patient was anæsthetised, and the knee having previously been thoroughly antisepticised an incision was made on the inner side. There was a considerable amount of venous hæmorrhage, which was stopped prior to opening the joint; a small piece of cartilage, about the size of a plum stone, was removed; the joint was then thoroughly irrigated with boracic lotion; the wound was united by horsehair sutures and dressed with the double cyanide gauze. *August 24th.*—Stitches removed; patient was up to-day. *August 27th.*—Left the hospital to-day. Temperature has been quite normal throughout.

Tubercular Disease of Knee Joint.

Victor B—, æt. 20, coachbuilder. Admitted to St. Luke Ward under Mr. Macnamara's care on May 30th, 1892. Was in the hospital in November last, when he had an arthrectomy performed; left with a plaster of Paris case on his knee, the wound having quite healed. Has been down to various convalescent homes since, but now comes up with swelling and pain of knee-joint, and is unable to walk. At the last operation the knee-joint was found to be extensively diseased, there is a history of three years' duration, he now has starting pains at night, and is unable to follow his employment; no cough; lungs normal; heart soft, systolic at apex. On June 1st Mr. Macnamara excised the joint, fixing the ends of the bones together by bone pegs; leg put up in plaster of Paris, leaving the knee exposed. *June 15th.*—Stitches removed to-day at third dressing, wound looking very well. Patient went on in a very satisfactory way, the wound healing rapidly except at the outer angle of the wound and at the position of insertion of the lower bone pegs. The former ultimately healed up, but the latter have given considerable trouble. The patient left the hospital on August 18th for a convalescent home; only a very slight discharge from the lower wounds; leg in plaster of Paris. I have lately seen this patient, he is still troubled with slight discharge at the position of inser-

tion of bone pegs. Can walk about and appears in good general health.

FRACTURES AND DISLOCATIONS.

One case of dorsal dislocation of the hip. Two cases of fracture of the humerus, one involving the surgical neck, and the other the lower third of the bone. One case of fracture of clavicle (acromal end). Two cases of fracture of both bones of the forearm (both compound). One case of fractured patella (transverse). One case of fractured femur. Three cases of fracture of both bones of the leg, one case complicated with traumatic delirium. Three cases of fracture of tibia only, all in lower third.

Dislocation of the Left Hip Joint (Dorsum Ilii).

Patrick D—, æt. 38, hawker. Admitted to Henry Hoare Ward, under Mr. Davy's care, on November 2nd, 1892. States that he was on the right side of a hansom cab trying to reach some money offered him by the occupant. His left leg, which was in an abducted position, was caught by the wheel, and he was knocked down. Was unable to get up himself, so was placed in a cab and conveyed to the hospital. He complained on admission of extreme pain in the region of the left hip joint and thigh, and there was considerable swelling about the part. Owing to the excessive pain very little manipulation of the joint was allowed, but such as was did not elicit crepitus. Oblique wounds (superficial) at junction of middle and lower parts of thigh and upper part of leg, as if caused by the iron tyre of the wheel. Left leg markedly *inverted*, drawn up at knee; shortening of 2¼ inches as measured from the anterior superior iliac spine to the internal malleolus. Great effusion round joint. Immobility of whole limb. Effusion completely obscures bony relationships, making it impossible to utilise either Nelaton's line or Bryant's triangle. Head of bone could not be felt. Patient was anæsthetised, and Mr. Davy performed the following manipulations:—1st. Flexion and marked abduction (crackling of tissue at site of joint was noticed); the limb was then suddenly extended, but without change. 2nd. Firm continued extension was applied, flexion of whole limb and gentle rotation outwards—this on bringing limb again to the straight showed lengthening of 1 inch on the injured side; keeping this in situ, elevating the knee, and gently mani-

pulating in a circular twist, the head of the femur was felt and heard to jerk into the acetabulum. Movement of injured limb at once free and natural. Long Liston's splint applied. The man is muscular and well nourished. Exostosis at upper and inner part of head of tibia (right), and the pectineal portion of the right pubic bone. The femoral artery is much displaced to the outer side. States that he has had these tumours since childhood; they are not getting larger, and they give him no inconvenience. No family history of exostosis. This patient remained in bed until the 29th of November, when he was allowed to get up. Discharged from hospital on December 13th. No pain whatever; mobility good.

Humerus.

Elizabeth E—, æt. 76, married. Fell down about six stone stairs. Admitted, under Mr. Macnamara, with fractured lower third of left humerus (transverse). There was considerable effusion in elbow joint. Arm treated with internal angular splint only and cold lotions applied to elbow until December 14th, when most of the swelling had disappeared. Gooch's splinting was then placed round the upper arm in addition to the internal splint. On January 7th splints were removed, bone in excellent position. Passive movement commenced. Discharged on January 24th, 1893, with perfect mobility of elbow.

Humerus (surgical neck).

Thomas William L—, æt. 64, engineer. Admitted to Henry Hoare Ward, under Mr. Macnamara's care, on November 14th, 1892. Patient was crossing the street when he was knocked by a horse on the right shoulder; which caused him to fall on his left side. On rising from the ground felt acute pain in left shoulder, and he states that the arm "hung quite loose." On admission there was a considerable amount of swelling in the neighbourhood of the left shoulder joint. Marked crepitus on making the least movement of the shoulder. Fracture below tuberosities. Internal rectangular splint applied with pad in axilla. Spirit lotion over joint. *November 24th.*—Shoulder put up with gutta-percha cap and axillary pad. *November 26th.*—Patient left the hospital to-day. Shoulder cap removed a month after the accident. Good union of the bone.

U OF M

Clavicle.

Margaret B—, æt. 55. Admitted to Queen Anne Ward, under Mr. Macnamara's care, on October 24th, 1892, with an oblique fracture of the acromal end of the clavicle on the right side. Very slight displacement but considerable bruising about body. There is great pain on movement of the arm. Patient was not put up immediately on account of the large amount of swelling, but kept in recumbent position with shoulder and head low. Arms kept to side. Subsequently put up with plaster of Paris. In hospital fourteen days.

Radius and Ulna.

Clifford B—, æt. 22, seaman, A.B. Admitted under Mr. Macnamara's care on the night of August 16th, after a fall from a second floor window. He was not unconscious at the time of admission, but stated that he recollected nothing of what occurred after the fall until he found himself being conveyed to the hospital. On examination there was found to be a compound comminuted fracture of the right radius and ulna. About the middle the wound was jagged and full of dirt, the ulna could be felt broken just within the wound. There was a small scalp wound on the right fronto-temporal region, but no injury to the bones of the cranium could be detected. No symptoms of concussion. The wound was thoroughly cleansed and washed with 1 in 500 solution of perchloride of mercury and closed with iodoform and cyanide gauze. The forearm was then placed between two straight splints and confined to a pillow. Patient states that he has always been very healthy and never suffered any illnesses as long as he can recollect. Is a fine, healthy-looking man. After admission patient passed a pretty good night; slept fairly well and did not complain of much pain in the forearm. Temperature, which was normal on admission, remained so until the following day, when it commenced to rise and reached 101·4° F. by 11 P.M. Bowels were confined, so ol. ricini ℥i. was administered. *August 18th.*—Patient did not pass a good night; was restless, and temperature kept high (just over 101° F.). This morning he complained of pain in the injured arm. The splints were accordingly changed and the wound redressed.

After this the temperature went up rapidly, reaching 102·6° F. in the afternoon. Sulphate of quinine, gr. ii., every six hours ordered. *August* 20*th.*—The temperature still keeps high; yesterday ranged from 101·6° to 103·2° (at 7 P.M.). Otherwise patient seems fairly well and does not complain of much pain in the arm. Early this morning the temperature fell to 100·6°, but rose again during the day. *August* 21*st.*—Temperature fell last night, and was below 100° at seven o'clock this morning. Patient has passed a better night than usual, wound on arm dressed. There is considerable projection of the muscles through the wound. *August* 23*rd.*—Patient was not so well yesterday and last night. Temperature rose to 104·8° yesterday and continues high. Owing to this and the swollen condition of the arm it was suspected that there was some collection of pus in the neighbourhood of the fracture, so an incision was made and a large quantity of serous matter evacuated. No pus. Arm put in fresh splints and boracic fomentations applied. *August* 25*th.*—Temperature continues to fluctuate very much. The wound in arm has been discharging pus. Boracic fomentations continued. *August* 28*th.*—Patient seems to be generally improving; has had better nights. Temperature has been gradually falling, and touched the normal line to-day at 7 A.M. for the first time since admission. Wound continues to discharge. *August* 31*st.*—Splints changed to-day, as the arm does not appear in good position. Internal rectangular splint applied, and short posterior splint for forearm. Wound discharging freely. Drainage tube inserted. There is still a good deal of bulging of the muscles through the wound. *September* 5*th.*—Seems to be going on very well now and says that he feels much better the last few days. Temperature keeps a little above normal, but not above 101° F. The discharge from the wound has considerably diminished. Wound syringed with boracic lotion and hot fomentations continued. *September* 21*st.*—Patient is now up and walking about. There is very considerable swelling of the arm at the seat of fracture. Discharge less. Tube shortened. Fomentations still applied. *October* 5*th.*—Iodoform dressing now used for wound, which is rapidly healing. *October* 17*th.*—Arm has been put up in plaster of Paris. Wound quite healed. No pain from movement. *November* 14*th.*—Plaster removed. Forearm is some-

what bent. There is a very large amount of callus. Flexion and extension of forearm is complete, so also pronation, but complete supination cannot be performed. Has good use of fingers. *December 15th.*—Patient's forearm has been massaged daily. Swelling about seat of fracture is rapidly disappearing. *December 31st.*—Patient left the hospital to-day with good use of the forearm.

Compound Fracture.—Right Radius and Ulna (lower third).

Jane S—, æt. 50, housekeeper. Admitted on December 13th, 1892, to Queen Anne Ward, under Mr. Davy's care. Had a fall down eight stairs. Admitted with compound fracture of right radius and ulna at lower third. Wound small on ulna side. A fragment of bone was projecting through the wound, and being loose was removed. Wound thoroughly irrigated with 1 in 40 carbolic lotion; dressed with the carbolised cyanide gauze. Forearm put up in Carr's splint. Left the hospital with good movement of wrist—bones in accurate apposition. Wound completely healed. Temperature normal throughout.

Femur.

John C—, æt. 6. Admitted, under Mr. Macnamara's care, with transverse fracture of right femur at junction of middle and lower third. Patient's father fell upon his thigh. Marked eversion and usual signs of fracture. Shortening $1\frac{1}{4}$ inch. Put up in a long Liston's splint with 4 lbs. extension. End of bed raised. Plaster of Paris applied after five weeks. This was kept on a fortnight. Some slight thickening could be felt at the line of fracture. Shortening scarcely perceptible.

Tibia and Fibula.

David P—, æt. 19. Admitted, under Mr. Macnamara's care, with transverse fracture of tibia and fibula (right) at middle third. Was kicked whilst playing football. Put up in back splint, with footpiece and Cline's side splints. There was a considerable amount of swelling at the time of admission. Splints kept on for three weeks; limb then placed in plaster of Paris, which was removed a fortnight later, when it was found that good union had taken place.

Herbert L—, æt. 23. Admitted, under Mr. Macnamara's care, with oblique fracture of tibia and fibula in lower third. Patient slipped off the pavement into the road. Displacement slight; scarcely any swelling. Put up immediately after admission with plaster of Paris. Was made an out-patient. Leg very comfortable. Plaster removed after five weeks. Good union.

Elizabeth P—, æt. 49, servant. Admitted to Queen Anne Ward, under Mr. Davy's care, on August 30th, 1892. Had a fall downstairs. Fracture of left tibia and fibula (former in two places), one about the centre of the shaft and the other at the junction of the middle and lower third. Fibula fractured about centre. Leg put up in a back splint, Cline's side splints, and whole slung from a cradle. On September 1st the patient became delirious; did not sleep at all. Delirium continued more or less for a week. Discharged with limb in plaster of Paris on September 26th, 1892. Bones in good position when plaster was removed a week later.

Tibia only.

John R—, æt. 47. Admitted under Mr. Macnamara's care, on September 8th, 1892, with fracture of the right tibia (transverse) just above the internal malleolus. There was a considerable amount of synovitis of the right knee-joint, also of the ankle. Patient was struck by a sack of sand; put up with back splint and side Cline's; ice bags applied to knee and ankle-joints. *September 19th.*—Foot, leg, and knee put up in plaster of Paris. There appears to be good union of the fragments. *October 10th.*—Plaster removed; leg in good position; some stiffness of knee-joint.

Francis H—, æt. 23. Admitted on August 17th, 1892, under Mr. Macnamara's care, with an oblique fracture of the left tibia at lower third; very slight displacement and scarcely any swelling; patient jumped out of a first floor window on to the pavement below; put up immediately after admission in plaster of Paris, which treatment was continued for a month; good union followed.

Walter T—, æt. 31, carman. Admitted under Mr. Macnamara's care, on July 29th, 1892, with oblique fracture of left tibia at junction of middle and lower third; patient had a fall from a cart; patient was admitted a few minutes after the accident;

[illegible] was put up immediately in [illegible] after it had been on for a [illegible]

[illegible] manufacturer. Admitted on [illegible] Macnamara's care, with a trans- [illegible] Patient slipped whilst [illegible] immediately after the accident [illegible] walk or even rise from the [illegible] an inch apart; there was [illegible] account of the extent of the syno- [illegible] time to draw the fragments into [illegible] with a back splint secured by [illegible] joint. *October 29th.*—There [illegible] not complain of any pain; [illegible] apping above and below, and [illegible] plane to secure relaxation of [illegible] It was found necessary to [illegible] wing to the gradual diminu- [illegible] tis. Patient was particularly [illegible] November 21st the leg was [illegible] there was scarcely any separation [illegible] has quite recently been heard of, [illegible] suffers no inconvenience.

[illegible] CIRCULATORY SYSTEM.

[illegible] the operation for the radical [illegible] of open dissection with strict [illegible] one of the cases was associated with [illegible]

[illegible] *Varicocele.*

[illegible] labourer. Admitted to S[illegible] Ward [illegible] care on December 8th, 1[illegible] plain- [illegible] and back, [illegible] tient [illegible] he [illegible] the last eigh[illegible] do [illegible] and much he[illegible] tion [illegible] standing up the [illegible] rm [illegible] be enlarged. [illegible] all.

Has no pain on manipulation. Pressure over external abdominal ring causes swelling to increase. On December 14th, Mr. Macnamara made an incision on the enlarged veins. Those in front of the vas were dissected, and two carbolised catgut ligatures applied, about an inch and a half apart. Intervening portion removed. Horsehair sutures used for scrotal wound. Dressed with iodoform, and the double cyanide gauze, which had been wrung out in a solution of 1 in 20 carbolic acid. No drainage tube inserted. Sutures removed on the 8th day. Patient left the hospital on January 5th. Temperature normal throughout.

William R—, æt. 18, milkman. Admitted on June 30th, 1892, under Mr. Macnamara's care with a large varicocele on the left side. Had been rejected from the army. Has never had any pain or inconvenience. Mr. Macnamara removed about an inch of the veins. Wound healed by first intention. Temperature rose on 3rd day after operation to 101° F.; remained normal until discharge 28 days after admission. Successful in gaining admission to the army subsequently.

Charles M—, æt. 43, butcher. Admitted to St. Mark Ward under Mr. Davy's care, complaining of "pain in testicle and back." States that he was quite well until about 6 weeks before admission, when he noticed "swelling and pain in left testicle," especially on making any effort, such as lifting a heavy weight. Also complains of pain in back and feeling of malaise. Has been accustomed to do a great deal of standing. Not constipated. For the last 6 weeks has worn a suspensory bandage which relieved him considerably; but latterly the pain has been worse. Left testicle much lower than right. Plexus of veins in front of the vas is much enlarged, especially when the patient is in the erect posture. Testicle appears normal in size and sensation. Mr. Davy very kindly gave me the case for operation, this was performed on December 7th. I made an incision extending above as far as the external abdominal ring. The testicle was held in position and prevented from extruding. The veins were then dissected for about 1½ inches. Only the veins of the pampiniform plexus were touched, the vas and ins posterior not being int[illegible]ed with. A chromicised catgut ture was then put [illegible] ins at the lowest part, and her as high up [illegible] nd the intervening portion

removed. The ends of the ligatures were then tied together so that the testicle was drawn up. Before the ligature of the veins, a small encysted hydrocele of the cord was removed by dissection. The wound was then thoroughly irrigated with warm carbolic lotion (1 in 40). Horsehair sutures used for skin, and wound dressed with carbolised cyanide gauze. No drainage tube used. The strictest antiseptic precautions were observed throughout. The wound was dressed 24 hours after the operation, and again eight days later, when the sutures were removed. This patient made an excellent recovery, remaining in bed for a fortnight, and he left the hospital three weeks after admission.

Albert W—, æt. 18, labourer. Admitted under Mr. Davy's care to St. Mark Ward on September 20th, 1892, complaining of a "dragging sensation" in the left testicle, and also of pain extending down the left thigh along the course of the genito-crural nerve; usual signs of a varicose condition of the spermatic veins. On September 21st Mr. Davy made an incision over the veins about 2 inches in extent, these were ligatured with carbolised silk in two places about 1½ inches apart. Intervening portion removed and ends of ligatures then tied together. Horsehair sutures used for skin, no drainage tube employed. Wound dressed with carbolised cyanide gauze. On the following day the wound was dressed, and again 8 days later; healed by first intention. The patient made an uninterrupted recovery.

James B—, æt. 15, house-boy. Admitted to Northumberland Ward under Mr. Cowell's care. Applied for admission to the navy, but was refused on account of having a varicocele. Admitted for operation. Mr. Cowell kindly allowed me to operate. I made an incision 2½ inches in extent over the veins. The various layers having been divided, the veins of the pampiniform plexus were isolated. Stout cat-gut (chromicised) ligatures were then put round, first below and then above, and the intervening portion excised. Ends of ligatures tied together. No drainage tube used; horsehair sutures for skin. Wound dressed with the double cyanide gauze, moistened with 1 in 20 carbolic solution. The usual subsequent treatment was adopted, and the wound healed by the first intention.

DEFORMITIES.

Three patients with genu valgum.—In two of these both

knees were affected, and in each case Ogston's operation was performed on either side. In the third case a wedge-shaped osteotomy of the tibia was performed. One case of ankylosis of the hip, in which subcutaneous division of the femur was performed. Two cases of flat foot: in each Mr. Davy removed portions of bone from the inner side of the foot, chiefly the scaphoid. An equally successful result was obtained in both cases.

Ivy W—, æt. 5. Admitted on November 18th, 1892, with genu valgum (both sides), to Percy Ward under Mr. Davy's care. Hypertrophy of internal condyles of femora very marked. On November 22nd, Ogston's operation of dividing the internal condyles of the femora was performed. Mr. Davy operated on the left side, and he kindly allowed me to do the other. The limbs were then put up in plaster of Paris and an outside splint. *December* 14*th.*—Splints and plaster of Paris removed yesterday afternoon. Both legs look remarkably well, and are in excellent position. No pain.

Alice E—, æt. 17, nursemaid. Admitted to Percy Ward, under Mr. Davy's care, with genu valgum on one side, and varum on the other. On July 27th wedge-shaped osteotomy of the tibia was performed. The patient made an uninterrupted recovery.

George H—, æt. 7½, Admitted to St. Mark Ward, under Mr. Davy's care, with double genu valgum. On July 20th, 1892, Ogston's operation was performed on either side. Limbs put up in plaster of Paris. *August* 9*th.*—Plaster removed to-day. No pain in joints. This patient left the hospital on August 26th. Limbs in normal position.

Louisa J. S—, æt. 6. Admitted to Percy Ward under Mr. Davy's care on November 7th, 1892. Was in the hospital 2 years ago with injury to right hip joint. Admitted on this occasion with the joint ankylosed in such a position that the limb was flexed too much to allow of progression, except with the greatest difficulty. On November 15th Mr. Davy subcutaneously divided the femur below the great trochanter. The limb was then put up in plaster of Paris. *December* 14*th.*—Plaster of Paris removed this afternoon. Limb in excellent position. Left the hospital on January 9th, 1893.

Percy G—, æt. 20, gardener. Admitted on November 8th,

1892, under Mr. Davy's care with flat foot. Patient suffers great pain on walking. Was in the hospital two years ago with the same condition. Everything has been tried in the way of instrumental aid, but without effect, also exercise of calf muscles. The pain is so severe that the patient comes urging that something may be done for his relief. On November 22nd patient was anæsthetised and Mr. Davy then made an incision (rectangular) on the inner side of the left foot. Portions of the scaphoid, internal cuneiform and head of the astragalus were removed. The bones were then brought into apposition by means of iron wire. There was considerable hæmorrhage, but it was easily controlled by pressure. Horsehair sutures used for uniting skin wound. Dressed with the double cyanide gauze, which had been previously moistened with 1 in 20 carbolic solution. Leg put up in outside splint and footpiece. Wound dressed 24 hours after the operation and not again for a week. Healed by first intention, temperature normal throughout. Left the hospital on January 26th, 1893. This patient has lately written to Mr. Davy stating that he has been perfectly free from pain since the operation and urging him to operate on the other foot. Re-admitted April, 1893, for operation on other foot.

Elizabeth J—, æt. 36. Admitted to Percy Ward under the care of Mr. Davy, on November 19th, 1892, with flat feet, left more marked than the right. Patient complains of extreme pain on walking. Has tried all palliative measures without avail, urges operative interference. *November 22nd.*—This afternoon Mr. Davy removed a wedge shaped piece of bone from the inner side of the foot, taking away the greater part of the scaphoid bone. Horsehair sutures used for skin. Wound dressed with carbolised double cyanide gauze. Outside splint with foot-piece applied. Wound dressed 24 hours after the operation and again 8 days later, when the stitches were removed. Normal temperature throughout. This patient left the hospital on January 30th, she had been up for some time, had no pain in foot and expressed great gratitude for the operation.

DISEASES OF THE URINARY TRACT.

Two cases of vesical calculus. In one case the operation of

lateral lithotomy was performed and the other was treated by the supra-pubic method.

Vesical Calculus.

Herbert P—, æt. 7. Admitted to St. Mark Ward under Mr. Bond's care on October 7th, 1892. Patient was quite well until two years ago, at which time the mother states the child had to pass his urine much more frequently and complained of considerable pain, especially on any movement. Has never noticed any blood nor has the urine at any time been dark coloured. The child has been getting worse lately, the attacks of pain being much more frequent. The mother states that the child has been losing flesh rapidly lately. The situation of the pain is across the lower part of the back and in hypogastric region. "Incontinence" of urine 2 years. Urine acid, sp. gr. 1010, albumen, phosphates, mucus and pus. Always lived in London, very healthy. No family history of calculus. Sounded for stone and a calculus was felt, somewhat hard; size of stone 1½ by 1 in. *October 18th.*—This afternoon Mr. Bond performed lateral lithotomy. There was very little hæmorrhage and the stone was removed without difficulty. The wound healed very well with the exception of a small fistulous track which gave considerable trouble. This however ultimately healed, and the patient was discharged from hospital on January 16th, 1893.

John R—, æt. 63, carpenter. Admitted to St. Mark Ward, under Mr. Davy, on August 2nd, 1892. Twenty years ago he spent 6 months in Derbyshire, but has usually lived in London. In March, 1891, he was knocked down by a horse; the same evening he experienced pain in passing his urine, and a week afterwards he had hæmaturia, sometimes in clots, at other times intimately mixed with the urine. Forty years ago he had gonorrhœa, and since his fall he had suffered from difficulty in micturition, necessitating the constant use of a catheter. "Pain at the bladder" and "scalding" around the anus have been increasing of late. On August 6th, on sounding, a stone of medium size was detected. The abdominal wall was normal and the patient fairly nourished, there being no excess of fat in the subcutaneous tissue. The urine was strongly alkaline, sp. gr. 1015; half albumen was found, and blood, pus and mucus were present. On the 9th, supra-pubic cystotomy was performed by

Mr. Davy. Neither the bladder nor the rectum was distended. A conical, probe-pointed sound was used, with a groove on its concavity and a hole at its top. A medium sized stone was extracted, measuring two inches by an inch and a quarter, weighing seventy-five grains, and composed throughout of soft phosphatic material. The mucous membrane of the bladder was inflamed and sacculated. The No. 4 sound was sufficient to bring the bladder wall well forward after the incision of the abdominal parietes. A Thompson's supra-pubic tube was passed into the bladder. It appeared that the obstruction to the outflow of urine was due to thickening and hypertrophy of the prostate. On the 11th the patient passed urine naturally and the supra-pubic tube was removed. From this time the patient's recovery was uninterrupted and he left the hospital cured on August 30th, 1892.* Temperature normal throughout.

Vide "Lancet," Vol. i., No. xix., 1892.

TWO SURGICAL CASES.

By Mr. H. WOLSELEY LEWIS.

I.—CASE OF RUPTURED LIVER.

(Under care of Mr. Cowell.)

Mary Ann Edwards, a short, stout woman, æt. 53, married. On July 10th, 1892, while walking across Victoria Street, was knocked down by a hansom cab, containing two heavy persons, the wheel of the cab passing over her abdomen. She was immediately brought to the hospital (3.15 p.m.), when she was found to be collapsed, but not unconscious; about five minutes later the patient vomited a heavy meal, which she had eaten shortly before the accident; she complained of pain over the region of the liver. She was removed (3.30 p.m.) to the ward and put to bed. On examination the collapse proved to be extreme, the face was pale, the pulse almost imperceptible, the surface covered with a cold sweat, the extremities cold, the respiration shallow, the temperature below 95°; there was a narrow wheal across the epigastric and hypochondriac regions. There was no fracture of ribs, spine, or other bones; no spitting of blood, abnormal dulness, nor other symptoms of injury to the thoracic viscera; there was no blood in the vomited matter; no blood or urine in the bladder (the urine having apparently been passed into the clothes); there was extreme tenderness over the right hypochondriac and the epigastric regions; there was considerable pain between the scapulæ; there was no abnormal dulness or tenderness, other than that already mentioned in the abdomen; xx♏ of brandy were given hypodermically, and the condition of the patient improved remarkably, her pulse regaining volume, her lips and face regaining colour, and her general condition becoming much better. An hour later (4.30 p.m.) the patient began to show signs of internal hæmorrhage; the surface again became pale and cold, the lips blanched, the patient complained of great pain and want of breath, was

restless, sweating profusely, respiration sighing in character; temp. 96·2°, pulse 108. Half a grain of morphia was injected hypodermically, after which the patient, the pain and vomiting having ceased, slept for some hours. When she awoke she was somewhat better, but complained of pain over the liver, and was found to have increased dulness, extending to within two inches of the crest of the ilium along the line of the colon; she had much flatulence, and the vomiting recommenced; the patient suffered from a very severe thirst, saying that if she could move she would drink the hot water out of the bottle at her feet. She was given a teaspoonful of milk at a time, but the vomiting was so continuous that she was unable to keep even this down. This continued also throughout the following day (11th). The mouth was swabbed out with glycerinum boracis, which to some extent relieved the thirst. During the day she passed one ounce of urine, which was normal. On the next day (12th) the feeding with milk, a teaspoonful at a time, iced, was again tried, and she succeeded in keeping this down, but if the quantity was increased, vomiting immediately followed; she was given another hypodermic of morphia in the evening, which secured her a good night's rest. The vomit was not bilious at all. She passed 12 ounces of urine during the 24 hours. The pain over the liver was still severe, and the tenderness extreme, the dulness about the same. In the evening the temperature rose to 99·2°, pulse 108, somewhat improved in volume. During the 11th and 12th the patient was taking one ounce of brandy a day, with a view to stopping the vomiting when she took milk. During the 13th the symptoms remained as on the previous day, but the temperature rose to 100° in the evening. On the 14th the patient was jaundiced, vomited less, was given an enema, which brought away a small motion with a slight quantity of dark blood; the temperature rose in the evening to 100·4°; the pulse and general condition of the patient improved, but she still suffers from pain and tenderness over the liver and some headache, and the thirst is also still very severe. On the 16th the jaundice was more marked, the temperature rose to 101°; the pain, which extends all down the right flank, is worse; but the vomiting has ceased, and the thirst somewhat less; pulse 120. The patient continued very gradually to improve; an enema was given on the

17th and every other day subsequently, the motions being clay coloured and very offensive. The temperature remained slightly above normal until the 23rd. The amount of milk given at a time was gradually increased, and the vomiting did not return after the 17th. The jaundice became gradually deeper in colour. On the 19th the patient had a little arrowroot to eat, which she did not return. After this the patient improved rapidly, so that by the 25th she had neither pain nor tenderness; the vomiting entirely ceased, and she slept well at nights. On the 26th the dulness in the right flank, which had been diminishing, had completely disappeared; the jaundice had also faded away. At the beginning of August her diet was increased to fish, and about a week later she was taking an ordinary diet with fair relish. On Aug. 7th she sat up for the first time, and on the 9th her bowels were moved naturally. She then became rapidly convalescent on a nutritious diet with port wine and a tonic of iron and strychnine, her bowels being regulated by a small dose of confectio sennæ every morning. She left the hospital at the end of August, and a fortnight later took a voyage to Australia; when she arrived there found herself completely recovered, and with the exception of an occasional pain in the right side was in her usual state of health.

This case is chiefly of interest as having been undoubtedly one of rupture of the liver, with perfect recovery. I say undoubtedly, because all the known symptoms of that accident were present with the exception of "bilious" vomiting and sugar in the urine. Owing to the very slight degree of peritonitis, and the limited area of abnormal dulness, it was supposed that the effusion of blood and bile was extraperitoneal —the rest of the symptoms, such as pain, collapse, signs of internal hæmorrhage, jaundice, clayey stools, were all so well marked as to leave no doubt of the diagnosis.

II.—ANEURYSM OF RIGHT FEMORAL AND LEFT POPLITEAL ARTERIES.

(UNDER THE CARE OF MR. MACNAMARA.)

John Burrows, æt. 40, a painter, was admitted to Westminster Hospital on June 24th, 1890. Patient for some years previous

to admission had worked as a painter, but when a young man, between 20 and 30, had been a professional runner, both in short and long races, for five or six years; for several years he had served in a cavalry regiment; subsequently for some little time previous to becoming a painter he had been working as a common labourer. His father and mother had both been healthy. When admitted to the hospital he had been married for 20 years, he has six children living, two died in infancy. When a young man used to drink heavily, but has not done so for many years now. When 18 years old he had a hard sore on the penis, and enlarged and shotty glands in the groin, which did not suppurate; but has never had any secondary symptoms of syphilis. Has never had gout. Nine years ago had a fracture through the upper third of the right femur. The patient is a healthy-looking man, though rather thin and pale. His heart, lungs, liver, and digestive organs are normal; has no albumen in his urine; his arteries are somewhat hard, but there is no evidence of an aneurysm anywhere but the one mentioned below. Six weeks before admission to the hospital, the patient states that he discovered he had a small lump in the front and upper part of the right thigh, but did not take any particular notice of it as it did not pain him at all, but later observing that the swelling had increased considerably in size, and that it was becoming slightly painful, and that his leg began to swell, he sought the advice of a practitioner in the neighbourhood, who told him to go to a hospital; which he accordingly did on the following day. The patient lies in bed with both legs flexed; in Scarpa's triangle, on the right side, is a large pulsating, expansile swelling; the superjacent skin is inflamed and eczematous; there is some œdema of the limb, especially along the course of the femoral vessels; there is not much pain in the limb, but a feeling of numbness and pins and needles. The tumour is quite soft and fluctuating, a distinct thrill can be felt, and a loud bruit heard, in it. The pulse in the right anterior tibial artery is not so distinct as in the left side, and appears to be somewhat delayed. It was decided, considering the large size, rapid growth, and softness of the tumour, the state of the skin over it, and the condition of the limb, that the wisest course to pursue would be ligature of the external iliac artery. Accordingly, the day after admission (June 25th), under the

administration of ether, an incision commencing from a point one inch above Poupart's ligament, and half an inch outside the internal abdominal ring and curving upwards to a point one inch above and inside the anterior superior iliac spine having been made through the skin, subcutaneous tissue, superficial and deep fasciæ, the aponeurosis of the external oblique and the internal oblique and transversalis muscles; the transversalis fascia was divided on a director and the peritoneum was stripped away from the iliac forsa until the external iliac artery came in view; the sheath having been opened, thick silk, which had been carbolised thoroughly by being boiled in 1 in 20 carbolic lotion, was passed round the artery from within, outwards, and tied, the pulsation in the tumour entirely ceasing at the moment of ligation. The wound was then thoroughly cleansed with hydrarg. perchlor., and carefully dried; the various layers which had been divided were brought together with chromicized catgut, and the skin with horsehair. No drainage tube was inserted. The wound was dressed antiseptically. The patient was then carried to bed and the leg wrapped in cotton wool, elevated on pillows; a hypodermic injection of morphia was given, but the patient passed a rather restless night; the toes, however, remained quite warm, there was no pulsation in the aneurism, and very little pain in the leg. Two days after the operation there was found to be a small collection of pus in the skin immediately over the aneurismal tumour, which was still fluctuating and soft though somewhat smaller than formerly. This was let out by a small incision. A week later the wound was dressed, and found to have healed in its entire length by first intention; three days later the sutures were removed. Twenty-three days after the operation the aneurysmal tumour, which was still quite soft and fluctuating, though not pulsating, exuded a slightly sanious fluid. It was dressed antiseptically every day, and continued to ooze, discharging a sanious pus for the whole of the next month, the tumour the while diminishing gradually in size; at the end of another month the discharge entirely ceased, and the wound healed up. A few days later the patient left the hospital with a perfectly useful limb on which he was able to walk easily. It is remarkable that during the suppuration of the sac the patient's temperature only once rose above normal, and then only to 100·8°.

On March 6th, 1893, the patient was readmitted to Westminster Hospital, having been induced to seek advice for a swelling behind the left knee. He had first noticed this swelling five weeks previously, when he had pain down the left leg, and a feeling of weakness and stiffness of the joint on walking, so that he was compelled to abandon his work. On examination he was discovered to have a pulsating, expansile tumour about the size of a hen's egg in the popliteal space lying chiefly on the outer side of the middle line under cover of the tendon of the biceps; the pulsation entirely ceased on compression of the femoral, the swelling at the same time diminishing in size; on releasing the artery the tumour filled suddenly again, and assumed its former dimensions; the pulsation is less forcible when the leg is raised, but does not entirely cease. At the level of the tumour the left leg measures 16 and the right only 14 inches; the pulsation in the posterior and anterior tibial arteries is somewhat feeble; there is slight œdema of the ankle on the left side; a bruit and thrill occur in the tumour; the pain in the leg does not appear to be very severe. For a week after admission the patient was kept in bed and carefully dieted, no digital or instrumental compression was attempted; and though the tumour did not diminish in size, there was less pain in the leg towards the end of the week, and the œdema of the ankle had entirely disappeared. On March 14th (eight days after admission), the patient having been prepared by a purge and enema, the operation for ligature of the superficial femoral at the apex of Scarpa's triangle was undertaken; the skin having been shaved and thoroughly carbolised, an incision was made down to the artery, which was found to be rather a small one, and it was tied in two places by silk ligatures, which had been boiled in 1 in 20 carbolic acid. On ligature the pulsation in the aneurism entirely ceased, the wound was then thoroughly cleansed and sewn up with horsehair. No drainage was deemed necessary. The whole leg was then swathed in cotton wool, and put up on a long Liston's splint, the wound being antiseptically dressed. On the 18th (four days later) the wound was examined, and found to have healed by first intention: the sutures were, however, left in till the 22nd. On the night of the operation the patient complained of great pain in the leg, and was given an hypodermic of morphia, which, however, only

secured him a few hours' sleep. The leg and foot retained their warmth; there was no appreciable difference in the temperature of the two feet. For the four days subsequent to the operation the patient continued to complain of a dull aching pain in the left leg, but with this exception had not an unpleasant symptom. The splint was removed from the leg on the 22nd; there was then no pulsation in the tumour behind the knee, which was distinctly firmer to the touch, and smaller than before the operation. The wound was covered over with a little iodoform wool, but was now entirely healed; there was no pain in the leg, and though the cotton wool which was wrapped round the limb had been left off, it maintained its temperature perfectly. The patient got up for the first time on the 25th, and was able to stand without pain on the leg, which was then quite well. The patient was discharged from the hospital on April 4th.

This case is interesting as being a perfectly successful case of ligature of the right external iliac artery for a suppurating aneurysm of the femoral in Scarpa's triangle, and an equally successful ligature of the left superficial femoral artery for a large aneurysm in the popliteal space; but I should like to draw attention to a fact which is also of great interest, which is this, that notwithstanding that in both these lower extremities the main artery of the limb had been tied on the right side almost at and on the left near to its commencement, the nutrition of the legs is so perfect that no trace of malnutrition can be discovered either in the state of the skin or the condition of the muscles. And this fact is particularly worthy of notice, as in neither case has any part of the main arterial vessels of the limbs been used in maintaining this very efficient collateral circulation, for it is found on examination that in both legs the superficial femorals, the popliteals, the anterior and posterior tibials cannot be felt to pulsate, so that the patient has now two perfectly nourished limbs to which the blood is conveyed through a large number of small anastomosing channels.

OFFICIAL REPORTS.

REPORT

OF THE

POST-MORTEM EXAMINATIONS MADE IN 1891.

By Dr. HEBB.

Cases recorded			208
Males		136	
Females		72	
General Diseases:			
Enteric fever		5	
Erysipelas		5	
Rheumatic fever		1	
Pertussis		1	
Tuberculosis		10	
Rickets		2	
Pernicious anæmia		1	
Purpura		1	
		—	26
Diseases of the Nervous System:			
Cerebrospinal meningitis		4	
Cerebral tumour		1	
Cerebral hæmorrhage		2	
Chronic hydrocephalus		1	
Chorea		1	
Convulsions		2	
		—	11
Diseases of the Circulatory System:			
Cardiac—			
Aortic	7	18	
Mitral	7		
Aortic and mitral	4		
Aneurysm of aorta		2	
Pericarditis		1	
Congenital		1	
Embolism of pulmonary artery		2	
		—	24
Diseases of the Respiratory System:			
Laryngitis		1	
Acute bronchitis		2	
Broncho-pneumonia		10	
Acute pleurisy		2	

Diseases of the Respiratory System—*continued.*			
Pneumonia		15	
Empyema		3	
Pyopneumotherax		1	
Chronic pneumonia		1	
Chronic bronchitis		2	
Sarcoma of lung		1	
Carcinoma of pleura		1	
Phthisis		23	
		—	62
Diseases of the Digestive System:			
Ulcerative colitis		1	
Ulcer of stomach		3	
„ duodenum		3	
„ vermiform appendix		1	
Cancer of œsophagus		2	
„ stomach		1	
„ intestine		3	
Peritonitis		3	
Chronic subperitoneal fibrosis		1	
Sarcoma of peritoneum		1	
Hepatic abscess		1	
Cirrhosis		2	
Diarrhœa		4	
		—	26
Diseases of the Thymus:			
Hypertrophy		1	
		—	1
Diseases of the Thyroid Body:			
Bronchocele		1	
		—	1
Diseases of the Supra-venal Bodies:			
Addison's disease		1	
		—	1
Diseases of the Urinary System:			
Chronic renal—			
Large white kidney	3		
Mottled granular kidney	3	8	
Red granular kidney	2		
Disseminated suppurative nephritis		1	
Calculus in ureter		1	
Villous of bladder		1	
		—	11
Diseases of the Generative System:			
Cancer of uterus		1	
		—	1
Diseases of the Organs of Locomotion:			
Acute periostitis		1	
Caries of spine		2	
		—	3

DISEASES OF THE CONNECTIVE TISSUE:		
Obesity	1	
	—	1
INJURIES AND SURGICAL OPERATIONS:		
Amputation of thigh	8	
" arm	1	
" breast	1	
Excision of cervical cyst	1	
Thyrotomy	1	
Colotomy	1	
Laparotomy	2	
Nephrotomy	2	
Hysterectomy	1	
Hernia	5	
Stricture of urethra	1	
Extravasation of urine	1	
Cellulitis	2	
Fracture of skull	6	
" spine	1	
" ribs	2	
" arm	1	
" leg	1	
Opium poisoning	1	
Cut throat	1	
Asphyxia	5	
	—	40

Remarks and short notes on most of the foregoing cases. The numbers from 195 *to* 400 *refer to the folios in vol. vi.; from* 1 *to* 40 *to those in vol. vii. of the P. M. Registers.*

GENERAL DISEASES.

Enteric fever.—268. M., 6. Ulcers in small and large intestines; broncho-pneumonia.

270. F., 18. Ulcers in ileum; mitral stenosis; recent vegetations on mitral; lungs much engorged; left lateroversion of uterus; clot in uterine cavity; quite recent corpus luteum.

371. M., 17. Duration of disease, 11—12 days. Glands swollen; very little ulceration; some ulceration of epiglottic mucosa.

373. F., 19. Hyperpyrexia. Temperature 109°. Lupus of nose; ovaries cystic.

381. M., 25. Perforation; peritonitis.

Erysipelas.—231. M., 45. Of face. Laryngeal mucosa very œdematous; liver cirrhotic, fatty.

235. M., 50. Of face. Suppurative bronchitis; chronic pleuritis. In both lungs, much consolidation from presence of caseous and fibroid tubercles.

246. M., 36. Faucial and laryngeal mucosa much swollen; cervical and mediastinal cellular tissue greatly swollen with some diffuse suppuration in places.

281. M., 61. Of face. Empyema; acute pericarditis. Heart large.

390. F., 6 months. Began on buttock; no wound apparently; spread almost all over body; skin became gangrenous in several places.

Rheumatic fever.—317. M., 23. Piamater injected and somewhat sticky; no pus; recent vegetations on aortic and mitral valves; acute pericarditis. Microscopical examination showed that there was considerable emigration of leucocytes into cardiac tissue.

Pertussis.—25. F., 4. Cerebral cortex of dark red purple hue; intra muscular cardiac petechiæ; broncho-pneumonia.

Tuberculosis.—195. M., 13 months. Tubercular cerebro-spinal meningitis; otitis media; tubercles in lungs, liver, spleen, and kidneys.

197. M., 12 months. Pleuritis. Tubercles in lungs, stomach, intestines, liver, and spleen.

200. M., 14 months. Tubercles in lungs, liver, spleen, lymphatic glands, and kidneys.

207. M., 15. Tuberculosis of peritoneum and lymphatic glands; pleuritis with effusion.

269. F., 2. Tubercular meningitis; tubercles in lungs, liver, spleen, lymphatic glands, kidneys, and intestines.

274. F., 43. Tuberculosis of lungs and intestines; no breaking down of pulmonary tissue; subcutaneous diffuse abscess about middle of sternum; some coarse granulations at fundus uteri, possibly placental remains.

279. M., 3. Recent pleuritis; broncho-pneumonia; tubercles in lungs, lymphatic glands, and spleen.

288. F., 16. Tubercular cerebro-spinal meningitis; tubercles in lungs, liver, spleen, and most lymphatic glands; recent pleuro-pneumonia; stage of red hepatisation; membranæ tympani absent, and both middle ears filled with dry greenish-brown material.

314. M., 4 months. Tubercles in lungs, liver, spleen, kidneys; broncho-pneumonia; empyema.

369. F., 8. Tubercles in lungs, pericardium, endocardium, liver, spleen, kidneys; pleuritis; lungs much consolidated.

Rickets.—261. 344.

Pernicious anæmia.—214. M., 33. Emaciation; viscera pallid and exsanguine; pigmentation of skin, of feet, legs, and buttocks; nothing abnormal in adrenals or in sympathetic ganglia. Heart relatively large, 13½ ozs. To me, the condition of intestinal mucosa was the most striking, the gland element being conspicuous by its absence, "the mucosa above ileo-cæcal valve is quite smooth." Next to this the pancreas, "pale drab in color, flabby, flat, and wasted in places."

Purpura.—396. M., 20. Subserous hæmorrhagic petechiæ, most numerous beneath the pleuræ and epicardium.

Diseases of the Nervous System.

Cerebro-spinal meningitis.—220. F., 7 months. Suppurative meningitis of brain and cord; chronic hydrocephalus; convolutions flattened; ventricles very large; choroid plexus wasted and adherent to floor of ventricles. Pus in ventricles as well as along pia mater.

221. M., 2 months. Suppurative meningitis of cord and brain; chiefly over vertex, very little at base.

222. M., 4 months. Suppurative meningitis of cord and brain. Nearly all the pus was at base of brain and along posterior aspect of cord.

Cerebral tumour.—264. F., 40. Diffuse infiltrating glioma; involving cortex anterior to left ascending frontal. Though in appearance gelatinoid, its consistence is firm. Internally it

shades off gradually into the normal brain substances. Color whitish. No hæmorrhages.

Cerebral hæmorrhage.—237. M., 20. Base and sides of brain and posterior aspect of spinal cord are covered with a continuous thickish layer of a soft black clot. Fourth ventricle, iter and lateral ventricles filled with clot and bloody fluid. No fracture was discovered. Large bruise on neck. I presume that the hæmorrhage was the result of violent excitement.

332. F., 48. Hæmorrhage into left corpus striatum. Extensive white softening of white matter of right hemisphere. Pleuro-pneumonia; hypertrophy of left ventricle; some atheroma of arteries. Kidneys contracted granular.

Chronic hydrcephalus.—278.

Chorea.—292. M., 15. With the exception of a ring of coarsish but not large vegetations on mitral, the P. M. appearances were not noteworthy. Microscopical examination of the brain medulla and cord showed that the blood-vessels were large and numerous. In many places the perivascular spaces are very large, and in some there are hæmorrhages. In a few spots there are hæmorrhages into the nervous tissue. The vegetations on the mitral are composed of recent fibrous tissue, and at their base are some large blood-vessels. There is no evidence of degeneration or of deposit of fibrin. No micro-organisms were detected.

Convulsions.—238. M., 1 day.

377. M., 7 months. Brain much wasted; large collection of fluid in subarachnoid space, and also between dura and bone, especially in frontal and occipital regions; fissures deep; yellow degeneration of parietal and occipatal regions of both sides. Microscopical examination of spinal cord shows marked chronic inflammatory changes; the grey matter is ramified by numerous and engorged vessels. Though this cord throughout, as seen in section, is inflamed, the lateral columns and the grey matter have suffered most. The lateral columns resemble in appearance the condition seen in cases of descending sclerosis. The number of nuclei and the excess of connective tissue elements

in both the situations is greatly increased. In places the multipolar cells in anterior cornua are quite masked, while in other sections they are numerous, though apparently granular. The child's illness dated from an attack of "bronchitis and convulsions," possibly some acute specific disorder, followed by emaciation, diarrhœa, vomiting, and convulsions. Finally, complete rigidity of the body with retraction of head. Extremities blue; temperature subnormal.

Diseases of the Circulatory System.

Cardiac.—211. M., 28. Aortic cusps much thickened and ulcerated, the valve being stenosed and incompetent; attrition-ulceration of aorta and large flap of mitral; caseous infarcts in spleen and kidney; symmetrical psammoma tumours, the size of small Spanish nuts, on choroid plexus of ventricles. At bifurcation of branch of sylvian artery a small piece of calcareous matter was found. No clot. It was inferred that this was an embolus from aortic valve, as he was suddenly seized, the day before death, with violent throbbing in head, followed immediately by vomiting and soon after left hemiplegia.

295. M., 53. Aortic cusps thickened, ulcerated, and perforated.

302. M., 35. Chronic aortic valvulitis and aortitis: viscera cardiac. Facial erysipelas.

309. M., 69. Aortic cusps thickened and recurved. Undefended space is fibrous and perforated; well-marked chronic arteritis (atheroma) throughout the body; viscera cardiac; kidneys granular, red, cystic.

313. M., 30. Aortic cusps thickened and recurved; viscera cardiac. Two ulcers of gastric mucosa near pylorus, edges irregular, floor black, diameter about ¾ inch. Tænia solium in intestinal canal.

346. M., 26. Aortic cusps thickened and perforated; recent vegetations; viscera cardiac; hæmorrhagic infarcts in lungs.

35. M., 44. Aortic cusps thickened, recurved, ulcerated. Aortitis of ascending portion of arch; viscera cardiac.

215. M., 63. Heart large, 20 ozs. Auricles extremely large, but not hypertrophied; fringe of mitral somewhat thick

and opaque, but the endocardium is generally smooth and shiny; left auriculo-ventricular ring=5¼ inch; right ring=6½ inch. Aortic valve competent. Emphysema, bronchitis; chronic pleuritis; viscera cardiac; double oblique inguinal hernia.

226. F., 14. Stenosis of mitral and tricuspid valves, the ring of each being 3¾ inches in circumference; recent vegetations on both, but far more numerous on tricuspid; both auricles very large, and the endocardium of the left rough and granular; viscera cardiac; hæmorrhagic infarcts in lungs; small ulcer on first part of duodenum.

259. M., 67. Heart very large, globular in shape; mitral ring=4·5 inches in circumference; aortic valve competent; extensive atheroma of aorta and its branches; viscera cardiac; calculus impacted in bile duct close to duodenal papilla, but duct quite permeable; jaundice; well-marked osteo arthritis in hands, feet, and vertebræ. Microscopical examination of spinal cord was made owing to wasting of muscles of left upper extremity. In upper half of cervical region a small but definite patch of sclerosis at centre of postero median fissure. Multipolar cells seem normal in number and appearance. One-half of the cord is larger than the other; nerves of brachial plexus normal.

339. F., 53. Mitral extremely stenosed. Both auricles, more especially left, quite enormous in size; walls thin; aorta and branches atheromatous; spheroidal aneurysm size of small pea on right middle cerebral artery. Old apoplectic cyst, involving outer half of right basal ganglia, the wasting of the descending tract along crus and pons to cord is easily seen; some wasting of muscles of left arm and leg; some irregular patches of atrophy of renal cortex; uterus quite small; some chronic pelvic peritonitis. Microscopical examination of spinal cord showed sclerosis of one lateral column and the peripheral part of posterior columns. Blood-vessels large with thick walls. Direct pyramidal tract also sclerosed.

350. F., 47. Mitral much thickened, ring of coarse and recent vegetations along edge; left femoral veins clotted up as far as groin; uterus in position of left latero-version, the ovary and Fallopian tube being fixed to pelvic brim. In thyroid are solid and cystic growths about size of small nuts. Large bedsore on sacrum, and also on other osseous prominences.

359. F., 29. Mitral orifice much stenosed; coarse and fine vegetations on auricular aspect; hæmorrhagic infarcts in lungs; caseous infarcts in liver, spleen, and kidneys; veins of left broad ligament filled with firm decolorised adherent clot.

395. F., 46. Mitral stenosis; considerable œdema of aryepiglottic mucosa; uterus large; a few small subperitoneal myomata; chronic pelvic peritonitis; ovaries and Fallopian fimbriæ matted together; hydrosalpinx.

293. M., 13. Mitral flaps thickened and orifice stenosed; aortic cusps thickened and recurved; endocardium rough on left auricle and on mitral. Mitral ring = $3\frac{3}{4}$ in.; tricuspid, $4\frac{1}{4}$ in.; aorta, $2\frac{7}{8}$ in.; weight, $12\frac{3}{4}$ ozs. Large accumulation of fluid in the four serous sacs, especially in pericardial, which reached as high as clavicle.

329. M., 31. Mitral flaps thickened; orifice stenosed; aortic cusps thickened and recurved. Aortic ring = $2\frac{7}{8}$ in. Left auricle hypertrophied; pericardium universally adherent; chronic peritonitis affecting chiefly the parts in upper third of abdomen; peritoneal sac contains several pints of purulent fluid, but no lymph; viscera cardiac; hæmorrhagic infarct in lungs; small caseations in kidneys.

23. M., 40. Mitral flaps thickened, adherent; chordae shortened; adjacent halves of two aortic cusps thickened and recurved; pericardium universally adherent; considerable atheroma of aorta; chronic pleuritis; empyema; chronic and recent peritonitis; old apoplectic cyst involving outer half of right basal ganglia; erysipelas of lower extremities.

28. F., 18. Mitral flaps thickened and orifice much stenosed; aortic cusps thickened and recurved; numerous recent vegetations on tricuspid; pericardial sac enormously distended with clear fluid; viscera cardiac.

Aneurysm of aorta.—398. M., 31. The aorta is a good example of soft aortitis, and there are three aneurysms—one in first part of arch involving the aortic valve, one in descending thoracic aorta, and one in innominate artery. Heart large, left ventricle hypertrophied. Aortic ring is $3\frac{3}{4}$ inches in circumference. Large scar on glans penis. From the scar on penis, the age of the patient, who was brought in dead, and the naked

eye appearance of the aortitis, I was of opinion that this was an example of syphilitic arteritis.

7. M., 68. Saccular aneurysm of transverse arch; it is about the size of an orange, and its direction is upwards and backwards; it is lined by laminated fibrinous clot; the aperture is quite large. In descending aorta are three large patches of ulcerative aortitis. Heart normal. Considerable atrophy of renal cortices, some parts of the right being quite absent. Weights, 3¾ and 6½ ozs. The patient was a blacksmith; died soon after admission.

Pericarditis.—213. F., 5. Pericardium universally adherent; heart and pericardium together weigh 11½ ozs.; vegetations on tricuspid and mitral; mitral flaps adherent at edges, but scarcely, if at all, thickened; viscera cardiac.

Congenital.—276. F., 3 months. Foramen ovale widely patent; undefended space fibrous aud sacculated. Body much emaciated; was admitted for diarrhœa and vomiting.

Embolism of pulmonary artery.—367. M., 36. Veins of both lower extremities filled with firm decolorised adherent clot. Clot of a similar character was found in right heart and in both pulmonary arteries; hypertrophy of both ventricles; viscera cardiac; hæmorrhagic and caseating infarcts in lungs. Microscopical examination of kidney shows that there is excess of nuclei on malpigheans (glomerular nephritis); that the epithelia are slightly granular, and that the vessels are engorged. The embolic infarct (caseating) of lung shows that the pulmonary artery is blocked with an organising thrombus, and that the surrounding alveoli are filled with granular fibrinous material, in which are very few cells. The margin of the infarct is defined by a zone of engorged capillaries. This case illustrates the difference between a caseating and hæmorrhagic infarct.

30. M., 55. Malignant growth of left kidney eating into renal vein. Upon the neoplasm fibrin is deposited. Part of the clot is swept off, and is found plugging the right pulmonary artery. The patient was brought in moribund. No secondary deposits. Examination of the soft mass in renal vein shows that is composed of large epithelioid cells. Left bubonocele.

Diseases of the Respiratory System.

Laryngitis.—376. M., 2. Very small quantity of membrane on vocal cords; tonsils, cervical and submaxillary glands large; surgical emphysema of mediastinal connective tissue; hyperæmia of lymphoid glands in intestinal mucosa; horseshoe kidney; tracheotomy.

Acute bronchitis.—352. M., 2. Brought in dead. Suppurative bronchitis; lungs subcrepitant. In lower lobes are two yellow nodules not larger than small peas, and these on microscopical examination were found to be adjacent alveoli with their bronchioles packed with leucocytes. The hyperæmia of the parts affected is intense.

382. M., 6 weeks. Lungs subcrepitant; suppurative bronchitis. The durarachnoid over against right parietal and temporo-sperioidal regions is covered with a thin yellowish-brown semi-fluid deposit (imperfectly absorbed arachnoid hæmorrhage).

Broncho-pneumonia.—201. M., 7 months. Otitis media and post-pharyngeal abscess; both lungs consolidated.

224. F., 8 months. After diphtheria. Cervical and submaxillary glands swollen. Intubation; tube has ulcerated mucosa in three places, viz., side and base of epiglottis, about centre of left side of ericoid, and in trachea about one inch below larynx.

4. Age 1. Resection of eighth right rib for empyema; the whole of right lung in condition of unresolved broncho-pneumonia; no breaking down; no reaction with iodine; body extremely emaciated. Also 202, 219, 245, 247, 318, 17.

Acute pleurisy.—209. M., 30. Left pleural sac contains much turbid fluid and yellow lymph; lung much compressed; peritoneal sac contains a large quantity of thick yellow pus, and serous surface covered with yellow lymph, which mats the intestinal coils together.

341. M., 31. About two pints of turbid fluid and yellow lymph in the pleural sacs; both lungs much compressed.

Pneumonia.—196. F., 61. Red and grey hepatisation,

both lungs; stenosis of mitral; atheroma of aorta; stomach constricted about centre from cicatrisation of ulcers; granular contracted kidneys; uterus in position of left latero-version; os, pinhole; mucous polypus at internal os; calcified subperitoneal myoma.

203. M., 21. Right lower lobe, grey hepatisation.

210. M., 29. Grey hepatisation right, lower lobe; encapsuled abscess of right kidney; gastritis, with two ulcerations of mucosa near pylorus. Microscopical appearances of chronic and acute gastritis. The ulcers have shelving edges, are evidently the result of gastritis, and in no way resemble the perforating punched out ulcer of stomach or duodenum.

216. M., 38. Grey hepatisation of right upper lobe; acute pleuritis with much effusion into left sac; the left lung compressed, but not pneumonic; spleen 8¾ ozs., contains several septic infarcts; numerous erosion ulcers of mucosa of large intestine.

227. M., 45. Red hepatisation of right upper lobe; much effusion into right pleural sac; unresolved pneumonia of left upper lobe; left oblique inguinal hernia.

241. M., 6 months. Right upper and adjacent parts of middle and lower lobe in condition of red hepatisation; thickish layer of yellow lymph on superjacent pleura; left lung and pleura normal.

244. M., 28. Red hepatisation of left lower lobe.

252. M., 40. Grey hepatisation, left lower lobe. Great hypertrophy of left ventricle, but no obvious cause for it. In both suprarenal bodies are large recent hæmorrhagic extravasations, and in the right there is also a spheroidal firm mass which resembles a partially decolorised and organising blood clot.

265. M., 31. Grey hepatisation of right upper and left lower lobes; considerable effusion of lymph into both pleural sacs; liver fatty; hydrocele of right tunica vaginalis; right omental inguinal hernia.

277. M., 25. Grey hepatisation of left upper and right middle lobes; much effusion into pleural sacs with compression of lungs; consolidated tissue breaking down into abscesses in numerous places: these are crowded with micrococci (Gram). Caseating infarcts in spleen. Microscopical examination of spleen infarcts also showed cocci, and that these areas were

surrounded by zone of hyperæmia; little difference in quantity and character of contents of infarct from the normal splenic tissue outside, but in quality there is a profound change, the infarct-elements being very little chromoleptic.

287. M., 40. Grey hepatisation of right lower lobe; pericarditis.

312. M., 35. Grey hepatisation of right upper lobe; liver 95 ozs., very fatty.

316. 29. Grey hepatisation of left lower lobe.

353. 21. Grey hepatisation of right lower lobe and of whole of left lung; fibroid tubercles at right apex.

38. F., 51. Grey hepatisation of right lower lobe; considerable exophthalmos; parenchymatous goître; heart 15½ ozs.; muscle dark; hypertrophy; thyroid enlargement, palpitation and exophthalmos of 18 years' duration.

Empyema.—282. M., 4. Double empyema and unresolved broncho-pneumonia; pericardium adherent; liver 39 ozs., of a bright yellow color.

385. F., 10. Resection of right second and third ribs; right lung almost disappeared, pleura very thick; right thorax fallen in; spleen gives amyloid reaction with iodine.

6. M., 2. Much purulent fluid and lymph in right pleural sac; lymph all over left pleura; right lung consolidated and compressed.

Pyopneumo thorax.—372. F., 1. Pus and air in right sac; lung consolidated; several cavities; one perforating into pleural sac; left lung normal.

Chronic pneumonia.—290. M., 10. Ends of fingers and toes much clubbed; great hypertrophy of right lung; left lung small, contracted, consolidated; bronchi dilated; some recent cavities; pleural surfaces adherent; pericardium adherent; hypertrophy of right ventricle.

Chronic bronchitis.—217. M., 47. Chronic pleuritis with adhesion; emphysema. In both lungs are large masses of black pigmented fibrous tissue, chiefly about root; bronchi dilated with thick walls; pulmonary artery much distorted in its

passage through the fibrous tissue; the abdominal lymphatic glands are all hard, black, and, when squeezed, break up into black sandy grit; much black pigmentary deposit in liver, chiefly along portal system.

266. F., 40. Emphysema; heart 12¾ ozs.; both auricles and right ventricle much hypertrophied.

Sarcoma of lung.—249. M., 32. Right pleura much thickened and adherent; firm yellowish growth infiltrates the right upper lobe and compresses the lower; no secondary deposits; amyloid reaction in liver, spleen, kidneys, and stomach; there was considerable muco-purulent expectoration, and a rib had been resected. On microscopical examination a round-celled sarcoma.

Carcinoma of lung.—342. F., 50. Left lower lobe contracted and fissured from presence of a firm infiltrating growth of a yellowish white colour, mottled with olive green pigment; centre firm and fibrous, periphery soft; left pleura much thickened and nodulated from deposit; liver, stomach, pancreas, and part of duodenum weigh 224 ozs.; contains vast numbers of whitish soft spheriodal deposits of very varying sizes; two uric acid calculi in left kidney, the pelvis and calices of which are much distended and the renal tissue atrophied; myoma uteri about size of a spanish nut; microscopical examination of pleura shows inosculating spaces or tubular alveoli lined by epithelioid cells.

Phthisis.—228. M., 44. Tubercular pneumonia, with vomicæ; chronic laryngitis; tubercular ulceration of intestines.

234. F., 17. Tubercular fibro-pneumonia, with vomicæ; ascites.

251. F., 16. Chronic pleuritis; tubercular pneumonia; vomicæ; tubercular laryngitis; several large calcareous vegetations on mitral; stellate cicatrix on posterior aspect of stomach; gastric mucosa pitted all over with erosion ulcers.

263. F., 23. Recent miliary tubercles on right lung; left lung a mass of fibrous tissue burrowed by inosculating cavities, lined by pyogenic membrane, and filled with bloody fluid; colon extensively ulcerated.

294. M., 59. Chronic pleuritis; consolidation; yellow tubercles vomicæ.

300. F., 62. Chronic pleuritis; tuberculosis; fibrosis; vomicæ; emphysema; right kidney movable; a few small tubercles in kidneys; numerous sub-peritoneal uterine myomata; polypus at internal os; ovaries and fimbriæ bound down by chronic peritoneal adhesions.

303. F., 13. Left lung quite disorganised, being represented by fibrous bands, vomicæ, and masses of caseous tubercles; right lung hypertrophied; two aortic cusps are thickened and adherent; tubercular ulceration of intestines; much subarachnoid fluid; fissures deep; lateral and third ventricles very large; lining membrane of fourth ventricle very granular; nervous substance firm, almost indurated; body much emaciated; limbs flexed and rigid; microscopical examination of spinal cord shows that both lateral columns are sclerosed; atrophy of anterior rootlets, and of periphery of posterior columns.

310. F., 23. Acute pleuritis of both sides, the left sac containing several pints of purulent fluid; left pleura thickened and adherent over upper third; vomicæ, with fibrous walls at left apex; rest of this lung carnified; chronic laryngitis; pericarditis; veins of left lower extremity thrombosed; chronic pelvic peritonitis; ovaries and fimbriæ matted together; microscopical examination of fibrous wall of vomicæ showed that it contained tubercles.

337. M., 39. Tubercular laryngitis and tracheitis; tubercular pneumonia, with some fibrosis and excavation; ulceration of colon, sigmoid, and rectum.

354. F., 36. Tubercular laryngitis; pleural thickened; lungs consolidated from presence of much pigmented fibrocaseous masses of tubercles; vomicæ in upper lobes; tubercular ulceration of intestines; viscera amyloid; chronic pelvic cellulitis and peritonitis, the latter matting together the ovaries and fimbriæ.

394. M., 33. Pleural thickened, adherent; both lungs throughout in condition of tubercular pneumonia, with excavation and necrosis; in right kidney are two irregular pyogenic cavities and in prostate also some small ragged holes. Presumably both are tubercular.

5. M., 38. Tubercular ulceration of larynx; epiglottis

ulcerated away; pleuræ thickened, adherent; tubercular pneumonia, with fibrosis and excavation; tubercular ulceration of intestines.

11. M., 36. Ulceration of larynx: tubercular pneumonic; phthisis, with much excavation; considerable atheroma of aorta and of coronary arteries; ascites; cirrhosis; gastritis.

13. F., 25. Chronic pleuritis; numerous areas of pigmented and fibrosing tubercles in both lungs; peritoneum thickened and studded all over with large caseating tubercles; tubercular salpingitis.

14. M., 48. Fibro-pneumonic phthisis with excavations; tubercular ulcers of large intestine.

18. M., 27. In both lungs large areas of caseating and fibrosing tubercles. In right, numerous cavities, one of which has perforated pleura, causing pneumo-thorax. A few tubercular ulcers in large intestine.

21. M., 43. Pleuræ much thickened; much fibrous tissue, fibrous and caseating tubercles; vomicæ; emphysema.

26. M., 2. Well-marked rickets; left upper lobe converted into a cavity lined by granulation tissue; within it lies the sequestrum, a yellow firmish mass about size of a Spanish nut; in the rest of this and the right lung are numerous areas of caseating tubercles; some few tubercles in intestinal mucosa, spleen, kidneys, and lymphatic glands.

29. M., 24. Acute and chronic pleuritis; tubercular pneumonic phthisis with vomicæ; tubercular laryngitis; tubercular ulcers of intestine.

32. M., 43. Chronic pleuritis; tubercular pneumonic phthisis with excavations; recent blood clot in vomicæ; ascites; cirrhosis; pancreas much indurated; right tunica vaginalis thickened, adherent; epididymes fibrosed; testes atrophied; cord thickened; cicatricial phimosis.

34. M., 54. Chronic pleuritis; tubercular pneumonic phthisis with much fibrosis; one small excavation: great hypertrophy of left ventricle; kidneys granular mottled; cortex of right much wasted; prostate large, soft, mottled by yellowish areas.

39. M., 40. Chronic pleuritis; hypertrophous emphysema; suppurative bronchitis; numerous tubercular consolidations in both lungs; excavations; perihepatitis.

40. M., 44. Tubercular laryngitis; chronic pleuritis; tubercular aggregations, fibroid and caseating, in both lungs; large vomica in left apex; liver fatty and cirrhotic.

Diseases of the Digestive System.

Ulcerative colitis.—320. M., 29. Chronic laryngitis, with some recent ulceration; colon enormously distended and thickened, deeply ulcerated throughout; some ulceration of lower part of ileum; numerous small atrophic areas in renal cortex; diffuse hæmorrhagic extravasation into soft tissues of lower part of abdomen.

Gastric ulcer.—256. M., 22. Circular punched out ulcer about size of shilling on anterior surface, not far from lesser curvature, and about two inches from œsophageal aperture; perforation; peritonitis; œsophageal mucosa much pigmented.

262. F., 41. Stomach divided into two cavities owing to gastric ulcer about size of a florin. It has sharp punched out edges. The pyloric ring is ulcerated all round, and this runs on into another ulcer about size of a shilling. It is circular in shape, is seated on anterior surface, and its floor is formed of peritoneum and subperitoneal tissue only. There is no perforation. Death from exhaustion.

338. F., 32. Circular crateriform ulcer, diameter ¾ inch, in anterior surface of stomach, and about an inch from œsophageal aperture and the lesser curvature; perforation; peritonitis; tuberculosis of both lungs.

Duodenal ulcer.—357. M., 63. Punched out ulcer in first part of duodenum, about size of a florin; in its floor is seen large artery which is ulcerated; much blood in stomach and intestines; kidneys granular; copious deposit of urate of soda crystals in most joints.

400. F., 3 months. Perforating ulcer of first part of duodenum.

27. M., 51. Punched out ulcer about size of sixpence; it implicates partly the duodenum and partly the stomach; the duodenal tissue close by ulcer is thickened, and shows depression of the mucosa; perforation; peritonitis.

Ulceration of vermiform appendix.—283. F., 21. Ulcer of appendix; peritonitis; fæcal calculoid found in pelvis.

Cancer of œsophagus.—255. M., 56. Malignant stricture at root of neck, about two inches long, surface ulcerated and sloughy; diffuse suppuration of mediastinal connective tissue; several pints of purulent fluid in left pleural sac; lung collapsed; pericarditis. Epithelioma.

325. M., 62. Malignant ulcer about size of a florin at the level of tracheal bifurcation; the growth infiltrates, by continuity, the left bronchus, the mucosa being destroyed; suppurative pericarditis. Epithelioma.

Cancer of stomach.—365. M., 49. Cancerous ulcer affecting pyloric portion of stomach, growing edge much raised; growth is adherent to liver, the greater part of left lobe being infiltrated; also deposits in peritoneum, lung and lymphatic glands. Microscopical examination shows that the neoplasm is essentially epithelial, but, as is frequently the case, the histological appearances vary with the organ affected. In the stomach the submucosa seems principally implicated, the mucosa itself being involved secondarily and by continuity. In arrangement, the neoplasm forms longish ramifying tubules surrounded by fibrous tissue. In many places the central portion of the tubules have undergone a degeneration, so that the middle contains only delicate filaments. The cells are largish or moderate in size, with darkly staining oval nuclei, and a relatively small amount of plasma. In the lung the deposit is partly malignant and partly inflammatory. In one section there are two typical epithelioma nests.

Cancer of intestine.—267. M., 53. Villous fungating growth at commencement of large intestine; perforation; peritonitis.

322. F., 49. Pelvic cellulitis with adhesion of gut; cavity within the pelvic inflammatory tissue. With this cavity the intestine communicates, and also right Fallopian tube. Fimbriæ and right ovary not discovered; left ovary and fimbriæ matted down in growth; rectum thickened by malignant deposit; secondary deposits in liver; firm adherent decolorised clot in inferior cava. Microscopical examination—carcinoma; the sections of liver show vessels plugged with cancerous deposit.

331. M., 66. Malignant stricture of sigmoid flexure; laparotomy; peritonitis.

Peritonitis.—253. F., 49. From perforation of a foreign body, bone; suppurative parotitis.

307. M., 6 weeks. Prepuce removed a few days before; wound granulating.

334. M., 26. From diffuse chronic subperitoneal cellulitis; two abscess cavities behind peritoneum; abdominal lymphatic glands calcareous.

Subperitoneal fibrosis—340. F., 60. The subperitoneal connective tissue is everywhere very thick, causing a shrinking or induration of the various parts. The parts most affected are along the gastro-intestinal tube; elsewhere the fibrosis is not marked. There are no metastatic deposits; the overgrowth is quite continuous; no suppuration; pericardium adherent. Microscopical examination threw little light on the growth, only showing fibrous tissue, though there are a few places showing large spheroidal cells, but with no definite aggregation. On the whole, I am disposed to consider the hyperplasia to have had a chronic inflammatory origin.

Subperitoneal sarcoma.—273. M., 39. Omentum mesentery and some lymphatic glands infiltrated with soft elastic white growth, exuding on pressure a copious milky puce; secondary deposits in liver and kidneys; chronic and acute peritonitis; lympho sarcoma.

Hepatic abscess. 327. M., 47. Abscess of right lobe opening into duodenum, and also externally by surgical wound; numerous secondary small abscesses; spleen 14 ozs., almost diffluent; numerous septic infarcts; intestines except duodenum quite normal; chronic aortic valvulitis, but valve competent; on microscopical examination the splenic infarcts were found to contain large numbers of micrococci; the infarct areas are surrounded by a zone of hyperæmia; within this the splenic structure is quite discernible, though the constituent elements are very little chromoleptic.

Cirrhosis.—360. M., 45. Ascites; jaundice; pancreas much

indurated; liver large, very hard, surface nodular; moderate chronic gastritis; lower œsophageal veins large, distended, and somewhat varicose; arteries, especially those of heart and extremities, in advanced condition of atheroma; puriform fluid and lymph in left pleural sac; lung compressed; hæmorrhagic extravasation into left lung; right lung studded all over with pigmented fibroid quiescent tubercles; no disorganisation; no tubercles in left lung. Microscopical examination of posterior tibial artery shows that this vessel is an example of advanced endarteritis, with extreme degeneration, especially of the intima, which in places is much thickened; calcification of middle coat.

386. F., 40. Acute and chronic peritonitis; liver large, cirrhotic; pancreas large, hard; surgical wound between umbilicus and pubes; collection of pus in Douglas' space; chronic pelvic peritonitis matting ovaries and fimbriæ together; suppurative salpingitis; chronic laryngitis; much purulent fluid in right pleural sac, and lung much compressed.

Diarrhœa.—Infantile, 345, 356, 363, 393.

Diseases of the Thymus.

Hypertrophy.—198. M., 9. Firm white fleshy growth stretching from root of neck to heart, and occupying the upper part and front part of thorax. Microscopically it has all the characteristics of a persistent and hypertrophied thymus; tracheotomy.

Diseases of the Thyroid Body.

Bronchocele.—248. F., 18. Fibro-colloid; with this exception P. M. appearances were negative; the clinical phenomena were cerebral.

Diseases of the Supra-renal Bodies.

Addison's disease.—239. F., 29. Pigmentation of skin, oral and intestinal mucosas; adrenals large, caseous; chronic pelvic peritonitis; adhesions matting together uterus and its appendages; Fallopian tubes thick, distended (hypertrophy and hydrosalpinx), and in the right some thick blackish clot.

Diseases of the Urinary System.

Chronic renal.—199. M., 42. Large white; great hypertrophy of left ventricle; numerous diffuse hæmorrhages into mucosa of small intestine; much pouching of colon.

233. M., 28. Large white a.a., 8½ ozs.; no hypertrophy of heart, weight 9¾ ozs.; acute suppurative peritonitis; several umbilicated cicatrices on penis.

349. M., 28. Large white; considerable hypertrophy of heart; recent vegetations on mitral; recent pericarditis.

208. M., 30. Large white; surface granular; mottled on section; right 9¼ ozs., left 8¾ ozs.; heart 7¾ ozs.; liver fatty.

280. M., 40. Right 6¼ ozs., left ¾ oz.; surface of right granular; cortex large; on section yellowish, mottled with yellow purplish patches; pyramids purple; left in condition of simple general atrophy; recent pericarditis; left ventricle much hypertrophied.

378. M., 42. 5¼ and 5¾ ozs.; surface granular; consistence flabby; colour yellowish, mottled with red flecks; considerable hypertrophy of left ventricle.

379. M., 41. 5¾ and 5 ozs.; surface coarsely granular; capsules adherent; colour red-brown, mottled with large irregular areas of bright yellow; the consistence of the red parts is firm, that of the yellow softish; both ventricles much hypertrophied; arteries of brain and abdomen atheromatous; hypertrophous emphysema; numerous encapsuled caseations in apices of upper and lower lobes of both lungs; liver "nutmeg"; pancreas withered; erysipelas and subcutaneous cellulitis of left leg.

389. M., 42. Kidneys a.a. 3¼ ozs.; capsules thickened, adherent; surface granular; cortex diminished; colour red; consistence firm; numerous small cysts in cortex; great hypertrophy of both ventricles; pleuritis, with much effusion in both sacs; lungs compressed; ascites; chronic capsulitis of liver and spleen.

Disseminated suppurative nephritis.—225. M., 23. Right kidney large white, and is seat of numerous miliary abscesses; left kidney a fibrous sac, containing yellowish white fluid; left ureter impervious; right vesicula seminalis distended with pus; congenital malformation of urethra; no stricture; false passage

runs along upper wall into bladder, which is contracted; coats of bladder thin; chronic pleuritis; apices of lungs puckered and fibrosed.

Calculus of ureter.—305. F., 38. Calculus 1½ in. long, blocking left ureter just where it passes over pelvic brim; above, the ureter and kidney are distended, containing a gritty purulent fluid and a soft calculus, which is ulcerating through calyx and producing a peri-nephritic abscess; capsule much thickened and adherent to parts around; right kidney, 5¾ ozs., contains one small caseous infarct; scar of surgical wound in bladder, after operation at some other institution; chronic pelvic peritonitis; uterus spheroidal in shape, about 2 ins. in diameter; cervix absent; uterine aperture pinhole; ovaries hard, shrivelled, and matted to fimbriæ; at the base of aortic ring is large patch of recent ulcerative endocarditis, which implicates the valve and the aorta; several ounces of slightly purulent fluid in pericardial sac.

Villous of bladder.—260. M., 48. Large villous growths of vesical mucosa; right upper lobe in condition of gray hepatisation; aorta very atheromatous; left ventricle hypertrophied; kidneys very pallid, otherwise nil; the villous growth consists of tufts of vessels, covered by fusiform cells with large oval nuclei.

Diseases of the Generative System.

Cancer of uterus.—388. F., 36. Epithelioma of cervix, which had ulcerated through peritoneum, setting up acute peritonitis.

Diseases of the Organs of Locomotion.

Acute periostitis.—19. F., 3. Periostitis of shaft of left radius; shaft bare, dry, reddish; between shaft and periosteum much sanious pus; numerous septic infarcts in lungs; broncho-pneumonia; rickets.

Caries of spine.—223. F., 12. Caries of fourth and fifth lumbar vertebræ with consecutive abscess in pelvis and of upper part of thighs; tubercles in lungs.

374. F., 7. Caries of lower cervical and upper dorsal regions. A cavity now represents the bodies of three or four vertebræ, and this communicates by a narrow fistulous aperture with œsophagus; hypertrophy and dilatation of both ventricles; endocardium normal; kidneys a.a. 3¼ ozs.

Diseases of the Connective Tissue.

Obesity.—15. F., 53. Enormous deposits of adipose tissue both subcutaneous and subserous; quite large deposits beneath endocardium of both ventricles; right kidney 18 ozs., granular, cysts in cortex; left kidney 1½ oz.; simple atrophy; chronic pelvic cellulitis and peritonitis, matting together fimbriæ and ovaries; uterus large.

Injuries, Surgical Operations and Diseases.

Amputations.—204. M., 63. Of thigh, in middle third; commencing dry gangrene of toes of opposite leg; deposits of urate of soda crystals in joints; kidneys a.a. 5½ ozs.; a few small cysts, otherwise nil; grey hepatisation of left lung.

232. M., 50. Of thigh, at junction of middle with lower third; frontal and facial sinuses filled with offensive yellowish-green pus; no osteitis; bronchitis; hypertrophous emphysema.

355. M., 15. Of thigh, in upper third; large abscess of spleen; testicles undescended.

229. M., 59. At shoulder-joint for sarcoma of humerus; secondary deposit in liver; cirrhosis; kidneys granular, contracted; erysipelas of face.

383. F., 80. Of breast; right kidney "floating"; left kidney "moveable"; atheroma of abdominal and thoracic arteries; pneumonia; pleuritis; bronchitis; right direct inguinal hernia.

Excision of cervical cyst.—37. F., 55. Pericarditis.

Thyrotomy.—8. M., 49. Ulceration of larynx; fibro-caseating mass in right cervical region; ulceration of right pharyngeal pouch; necrosis of laryngeal cartilages; grey hepatisation of right lower lobe.

Colotomy.—3. M., 6 days. For imperforate anus.

Laparatomy.—375. M., 16. For intestinal obstruction from constriction by peritoneal bands, probably inflammatory in origin; ileum adherent to vermiform appendix, thus forming loop through which a knuckle of gut passed. Died soon after operation.

391. F., 25. For abdominal tumour. During operation it was found that abdominal and pelvic cavities were literally crammed with hydatid cysts; three large cysts also in liver; peritonitis.

Nephrectomy.—296. F., 39. In site of right kidney, fibrous tissue and sinus opening in lumbar region; extraordinary dilatation of rectum; tricuspid adherent to septum, which at undefended space is fibrous.

362. M., 20. Surgical wound in left flank; kidney absent; on injecting through aorta it was found that there were two renal arteries on left side, and that one of these was unligatured.

Hysterectomy.—298. F., 49. Uterus and appendages absent; peritonitis; diffuse subperitoneal cellulitis; chronic tuberculosis of lungs; vomicæ at right apex. The tumour for which the operation was performed was an enormous fibro-myoma of fundus uteri.

Hernia.—257. F., 52. Femoral; grey hepatisation of right upper lobe. Laparotomy was performed as well as operation for hernia.

319. F., 72. Femoral; fæcal fistula; bronchitis; pneumonia.

335. M., 62. Inguinal; fæcal opening to wound; atheroma of aorta; pigmented fibrosis of lungs.

348. F., 4. Femoral; rupture of intestine; peritonitis; broncho-pneumonia.

1. M., 3 months. Brought in dead. Right congenital inguinal; strangulated.

Stricture of urethra.—364. M., 32. Cystitis; septic abscesses of the kidneys and lungs; surgical wound in perinæum.

Extravasation of urine.—315. M., 53. From stricture of urethra; diffuse suppuration of perivesical cellular tissue; surgical wound in perinæum.

Cellulitis.—258. M., 60. Of scalp; large scalp wound; extravasation into left orbit; numerous ecchymoses of cerebral substance in frontal region; no fracture of skull; aorta athermatous; kidneys cystic; lungs very sodden and friable at bases.

384. M., 64. Of right axillary and cervical regions; several ounces of pus in right pleural sac; suppurative bronchitis; both bases engorged and friable; considerable atheroma of aorta; also of arteries of pia meter; several patches of yellow cortical softening on anterior half of left temporo-sphenoidal lobe, and one on external orbital convolution.

Fracture.—242. M., 57. Of base; subdural hæmorrhage; arteries atheromatous; grey hepatisation of right lung.

243. M., 22. Of base; much bruising of cortex; suppurative cerebro-spinal meningitis.

308. M., 4. Of base; considerable extravasation of blood upon cerebellum pons and medulla.

324. M., 2. Of vertex; much laceration of left temporo-sphenoidal lobe; slight rupture of liver; much subperitoneal extravasation; large hæmorrhage into right adrenal.

347. M., 37. Of base; much extravasation on surface; three ribs broken; liver fatty and cirrhotic.

20. F., 37. Of base; congenital coloboma of both eyes. In right ovary is a recent corpus lutcum; it is about 1 in. long, and has all the appearances of what is known as corpus lutcum of pregnancy. There is, however, no indication in uterus, in Fallopian tube, or elsewhere of an ovum or its appendages, belonging to the present or the immediate past. Uterus 3½ ins. long; mucosa bathed with a thin white or creamy-looking fluid.

205. M., 57. Of spine, pelvis, arm, and foot; pia mater thick opaque; vessels atheromatous; patch of yellow cortical softening about middle of first left frontal convolutuon; fibroid pigmented quiescent tubercles in lungs; slight rupture of spleen; diffuse extravasation into subperitoneal cellular tissue; right oblique inguinal hernia; omentum adherent to sac.

12. M., 28. Of eight ribs, with rupture of lungs; rupture of neck at junction of sixth and seventh vertebræ; no displacement; fracture of right corner of hyoid bone.

22. F., 76. Of ribs, sternum clavicle tibia, and femur

(intracapsular); bones very soft; contracted granular kidneys; atrophic cirrhosis.

271. M., 64. Of right humerus and left radius and ulna; arteries of pia mater in advanced condition of atheroma; numerous patches of softening in basal ganglia and pous; some atrophy of renal cortex; hypertrophy of left ventricle. Microscopical examination showed that the patches of softening were far more numerous than appeared to the naked eye.

272. M., 42. Of tibia and fibula on lower third; oblique, comminuted; liver fatty; delirium tremens.

Opium poisoning. 230. M., 39. Liver bestudded with numerous minute yellow nodules, which, on microscopical examination, were found to be syphilitic granulomata.

Cut throat.—301. M., 60. Wound between hyoid bone and thyroid cartilage; bronchitis; œdema of lungs; old well-united fracture of left tibia in lower thud.

Asphyxia.—254, 275, 286, 392, 10. Infants brought in dead.

REPORT

OF THE

POST-MORTEM EXAMINATIONS MADE IN 1892.

BY DR. HEBB.

CASES RECORDED		229
Males	135	
Females	94	
GENERAL DISEASES:		
Diphtheria	13	
Erysipelas	2	
Pyæmia	6	
Tuberculosis	16	
Syphilis	3	
Rickets	2	
Leukhæmia	1	
	—	43
DISEASES OF THE NERVOUS SYSTEM:		
Hæmorrhage	7	
Softening	1	
Tumour	2	
Abscess	1	
Meningitis	2	
Infantile palsy	1	
Hydrocephalus	1	
Convulsions	2	
	—	17
DISEASES OF THE CIRCULATORY SYSTEM:		
Embolism	3	
Endocarditis	13	
Arteritis	7	
Varix	1	
Adipose heart	2	
Dilated heart	2	
	—	28
DISEASES OF THE RESPIRATORY SYSTEM:		
Bronchitis	7	
Broncho-pneumonia	19	
Pneumonia	17	
Phthisis	16	

DISEASES OF THE RESPIRATORY SYSTEM—*continued.*		
Hæmorrhage	1	
Cancer	3	
Pleuritis	1	
Empyema	3	
Pneumothorax	1	
	—	68
DISEASES OF THE DIGESTIVE SYSTEM:		
Gastric ulcer	1	
Duodenal ulcer	1	
Postpharyngeal abscess	1	
Diarrhœa	6	
Peritonitis	9	
Cirrhosis	2	
Icterus gravis	2	
Cancer of tongue	1	
" stomach	2	
" colon	1	
" peritoneum	1	
" liver	1	
" gall bladder	2	
	—	30
DISEASES OF THE LYMPHATIC SYSTEM:		
Cancer	1	
	—	1
DISEASES OF THE SUPRARENAL BODIES:		
Melasma	1	
	—	1
DISEASES OF THE URINARY SYSTEM:		
Nephritis	4	
Cancer	1	
	—	5
DISEASES OF THE REPRODUCTIVE SYSTEM:		
Cancer of breast	2	
" uterus	1	
" ovary	1	
	—	4
DISEASES OF ORGANS OF LOCOMOTION:		
Caries of spine	1	
Morbus coxæ	1	
Sarcoma of femur	1	
	—	3
INJURIES AND SURGICAL DISEASES:		
Burn	1	
Asphyxia	1	
Cut throat	1	
Rupture of liver	1	
Fracture of arm	1	
" ribs	2	
" skull	5	

INJURIES AND SURGICAL DISEASES—*continued.*

Cellulitis	1	
Extravasation of urine	3	
Prostatic abscess	1	
Cystotomy	1	
Intestinal obstruction	4	
Hernia	5	
Amputation at hip joint	1	
„ of toe	1	
	—	29

Short notes on most of the foregoing cases. The numbers 41 *to* 316 *refer to the folios of vol. vii. of the Post-mortem Registers.*

GENERAL DISEASES.

Diphtheria.—47. M., 14. Membrane from epiglottis downwards; pneumonia; tracheotomy.

73. F., 3. Membrane from epiglottis downwards; pneumonia; tracheotomy.

98. M., $3\frac{9}{12}$. Membrane from epiglottis downwards; pneumonia; tracheotomy; tuberculosis with small vomica in right lung; ulcers of intestine; lymphatic glands caseous.

117. F., 2. Membrane on mucosa of nares and upper pharynx, but none on laryngeal or tracheal mucosa; the latter are covered with pus; acute emphysema; tracheotomy; anterior fontanelle large.

164. M., $2\frac{3}{12}$. Membrane on palate, fauces and epiglottis; pleuro-pneumonia; cadaveric softening of stomach.

181. F., 4. Membrane from epiglottis downwards; pneumonia; acute emphysema; hyperæmia of Peyer's patches.

186. F., $3\frac{8}{12}$. Membrane from epiglottis downwards; pneumonia; tracheotomy; pericardium adherent; otitis media.

189. M., $1\frac{3}{12}$. Membrane from cords downwards; pneumonia; tracheotomy; a few of Peyer's patches are hyperæmic; rickets.

195. F., 6. Membrane from epiglottis downwards; tracheotomy; some pigmented fibrous consolidation of both lungs.

198. M., $1\frac{4}{12}$. Membrane on larynx only; pneumonia.

208. M., $1\frac{3}{12}$. Membrane on faucial mucosa, and also in larynx; tracheotomy.

274. F., $2\frac{8}{12}$. Membrane from epiglottis downwards; pneumonia; tracheotomy; some of Peyer's patches are hyperæmic.

303. M., 3. Membrane from larynx downwards; pneumonia; tracheotomy; mediastinal glands much enlarged; rickets.

Erysipelas of Leg.—175. M., 51. Varicose veins of leg; liver 108 ozs.; well-marked cirrhosis; jaundice; atheroma of aorta.

196. (*of Face.*) M., 57. Emphysema and œdema of lungs; heart hypertrophied; faucial mucosa much swollen. A few small patches of degeneration on basal ganglia.

Pyæmia.—55. M., 76. Pus in knee and ankle joints; septic infarct in lung; emphysema; bronchitis.

166. M,, $2\frac{10}{12}$. Necrosis of the lower jaw; suppurative pleuritis; pneumonia; gangrene of lung.

174. F., 30. Puerperal; uterine mucosa ragged, suppurating; abscess of left ovary; thrombosis of veins of left lower extremity, the clot in left iliac suppurating; empyema; abscess of left lung.

265. F., 34. Puerperal; metritis; suppurative perimetritis; pyosalpingitis; peritonitis; ovaries swollen and œdematous; ulceration of laryngeal mucosa; diffuse suppuration of cellular tissue around larynx; chronic pleuritis; œdema of lungs.

272. F., 60. Pus in right knee and left shoulder joints; diffuse suppuration of soft tissues of both thighs; adipose heart; right membrane tympani perforated with suppurative otitis media.

281. M., 23. Purulent synoyia in right knee-joint; intermuscular abscess; septic infarct with necrosis of spleen; ulceration of larynx; induration of lungs from pigmented fibroid tubercles; kidneys 22 ozs., flabby, much engorged with blood, cortex large, surface smooth,

Tuberculosis.—74. F., $1\frac{8}{12}$. Tubercular meningitis; miliary tuberculosis of lungs; broncho-pneumonia; adherent pleuræ; caseations in spleen and kidneys.

91. F., 2. Tubercles in lungs, lymphatic glands, liver, kidneys, peritoneum, and intestine. Microscopical examination of kidneys showed that many malpighians were quite minute. Rickets.

108. F., 12. Tubercular meningitis; tubercles in lungs, intestines, liver, spleen, kidneys, lymphatic glands, and thyroid. Chronic mitral valvulitis; pericardium adherent.

131. F., 1½. Tubercles in lungs, intestines, liver, spleen, kidneys, lymphatic glands; skin covered with small pustules. (Varicella.)

136. F., 17. Necrosis-caries of left petrous bone; destruction of ear. Tubercular meningitis; phthisis; caseous necrosis of spleen. Cadaveric softening of œsophagus. Left leg amputated at upper third (old). Bone of stump atrophied.

155. M., 23. Tubercular masses in cerebrum and cerebellum; meningitis; some caseous nodules in spleen and kidneys. Mediastinal glands caseo-cretaceous.

170. F., 1½. Tubercular meningitis; tubercles and vomicæ in lungs; tubercules in intestine, spleen, and lymphatic glands.

173. M., 6. Tubercular meningitis; tubercles in lungs, spleen, kidneys, and lymphatic glands.

204. F., 10. Tubercular meningitis; left otitis media.

205. M., 8½. Tubercular meningitis; tubercles in lungs, liver, kidneys, and spleen.

224. F., 27. Tubercular pneumonia with excavations; tubercular ulcers of intestine; Adrenals large, together weighing just 1 oz.; on microscopical examination they show some "microscopical" tubercles. Most of these are in a very early stage, *i.e.*, a collection of indifferent cells. A few show the typical spheroidal nodule, with caseating centre surrounded by zones of imperfect fibrillation and of indifferent cells, in which latter may be giant cells. The caseating tubercles show a good few tubercle bacilli in their outer zone.

227. M., 17. Tubercular meningitis; tubercles in lungs, liver, spleen, and kidneys; cadaveric softening of stomach and œsophagus.

235. M., $\frac{10}{12}$. Tubercular meningitis; tuberculosis of lungs, pleura, liver, spleen, kidneys, and lymphatic glands.

257. M., 7. Tubercular meningitis; tubercular caseous mass in lung. Mediastinal glands fibrosed. Tubercles in spleen.

287. M., 2. Tubercular meningitis; tubercular necrosis of lumbar vertebræ with iliac abscesses; numerous large caseous

tubercular masses in liver; tubercular fibroid induration of lung; lymphatic glands caseous; angular curvature.

288. F., $2\frac{7}{12}$. Tubercular meningitis; tubercles in lungs, intestines, liver, spleen, kidneys, and lymphatic glands.

Syphilis. 151. M., 6 weeks. Skin covered with bullæ; some circular scabs on legs; mouth much fissured. Purulent ophthalmia. Spleen $1\frac{1}{2}$ ozs. (just). Liver 9 ozs., of a pale brownish drab hue, discoloured with diffuse areas of pale olive green, consistence flabby. On microscopical examination the sections were found to resemble those of icterus gravis, see 161.

159. F., 41. Large white cicatrices on skin; liver fatty; pancreas small and very hard; spleen amyloid; kidneys $15\frac{1}{2}$ ozs., large swollen cortices, speckled with yellow areas; pyramids purple. Hydrothorax: lungs carnified.

267. M., 23. Cranial bones thick, dense, hard. Depressed scar over right half of frontal bone, soft tissues are adherent, and the bone atrophied over an area the size of sixpence. Gummatous tumour, size of a pea, in floor of 3rd ventricle. The pia around is much thickened.

Rickets.—83. M., $1\frac{10}{12}$. Bronchitis; otitis media; spleen $\frac{3}{4}$ oz.

291. M., $1\frac{3}{12}$. Skin covered with sores and abscesses; the pus in latter is viscid, glairy, and like thin glue; craniotabes; some patches of collapsed lung; spleen $5\frac{1}{4}$ ozs., unusually firm, no reaction with iodine, of a red purple hue on section.

Leukhæmia.—240. M., 32. Arteries and veins distended with firmish coherent brick-red clot which on pressure breaks up with granular fracture. Microscopical examination showed enormous preponderance of leucocytes over red disks; recent hæmorrhagic pericarditis; spleen 101 ozs.; capsule thickened, adherent to left side and back of abdomen, has not taken its usual position when enlarged; consistence soft but regular; colour brick-red stippled over with minute whitish areas; liver 165 ozs., softish, of a pale brownish red hue; very slight enlargement of some prevertebral lymphatic glands.

Diseases of the Nervous System.

Hæmorrhage.—41. M., 40. Hæmorrhage into left corpus striatum passing backwards through lateral ventricle and iter to 4th ventricle, which is filled with clot. Diffuse hæmorrhage into laryngeal mucosa. Left ventricle hypertrophied. Walls of most arteries in extreme condition of soft atheroma. Kidneys 6 ozs. and 5¾ ozs., of a pale brick red colour, mottled with numerous diffuse areas of yellow; surface smooth, consistence normal. Microscopical examination of brain close to hæmorrhage, so as to include wall of ventricle, showed hæmorrhages dissecting up along the nerve tracks and paths; perivascular hæmorrhages. Walls of arterioles seem fairly normal. Liver fatty and no fibrosis. Arteries; endarteritis; the intima is thick, swollen and degenerating. Kidney, well-marked example of parenchymatous nephritis in transition stage from acute to chronic; epithelia are greatly swollen (the lumen of tubules being for most part occluded) and granular. The malpighians show thickening of capsule and great excess of nuclei. In places are large collections of indifferent lymphoid cells which in a few locations are commencing to fibrose.

130. M., 68. Clot in intermeningeal space over left fronto-temporal region where the convolutions are much depressed. No subarachnoid hæmorrhage but a few very small ones in pons and corpora quadrigemina.

169. M., 54. Soft black clot in subarachnoid space of brain and cord. In brain it spreads over base and sides; in cord it runs all round. The hæmorrhage was probably venous. No other morbid appearances of importance. For an analogous case see Vol. VI., f. 237.

203. F., 55. Hæmorrhage into right basal ganglia passing through lateral ventricle. Chronic arteritis. Hypertrophy of left ventricle.

228. F., 49. Hæmorrhage ploughing up right basal ganglia. Old apoplectic cyst in pons. Hypertrophy of left ventricle. Arteries atheromatous. Kidneys 4¼ ozs., small red granular. Costal cartilages ossified; emphysema. Chronic pelvic peritonitis.

243. F., 63. Hæmorrhage into right basal ganglia passing through lateral and 3rd ventricles, iter to 4th ventricle, which

is filled with clot. Arteries throughout body in advanced condition of calcareous atheroma; left ventricle hypertrophied. Calcareous deposit in mitral and aortic valves. Emphysema. Some large cysts in kidneys but otherwise nil. Chronic pelvic peritonitis. Situate in right cornu of uterus is a cyst about the size of an almond. It is adherent to uterine mucosa but easily peeled off. Its walls are about as thick as brown paper. It contains a thin, clear watery fluid.

314. M., 69. Hæmorrhage into right basal ganglia. Arteries, especially the coronary, are atheromatous. Left ventricles hypertrophied. Emphysema. Some few largish cysts in kidneys, otherwise nil.

Softening.—113. M., 49. Yellow softening of right lenticular nucleus. Chronic arteritis. Left ventricle hypertrophied. Chronic atrophic nephritis. Microscopical examination of spinal cord. Chronic leptomeningitis, but no evidence of descending sclerosis. Vertebral artery; beautiful example of concentric obliterative arteritis. The intima is almost alone affected. It resembles, from the interlacement of the fibres, basket work. Within the meshes are occasional lymphoid cells, and in a zone near the lumen these are in considerable numbers. There is quite a large number of recently formed vessels. The externa is also full of vessels.

Tumour.—162. M., 51. Soft cystic growth, implicating internal convolutions of right temporo-sphenoidal lobe. There is some recent hæmorrhage about the tumour, and the nervous tissue around is much softened and disorganised. Numerous yellow but not caseous nodules beneath liver capsule. Microscopical examination of wall of cyst showed that it was composed of long spindle-shaped cells, forming a network within the meshes of which are a few giant cells. There is no evidence of caseation. The appearances are not those of tuberculosis or indeed of a chronic inflammatory growth. The liver nodules consist of spheroidal aggregations of fibrous tissue; in some of these are follicles lined by cuboidal epithelium. In some places also are collections of leucocytes.

259. M., 33. Spheroidal tumour with diameter 1·5 inch at bottom of right central fissure. It is quite delimited. It is soft,

with evidence of concentric lamination and recent extravasion. It has grown from white substance out towards cortex. Cadaveric softening of stomach. P.M. 8 hours after death.

Abscess.—221. F., 29. Basal meningitis: abscess, size of walnut, in front half of right temporo-spheroidal lobe; cancellous tissue of basi-spheroid in condition of diffuse suppuration; left lateral sinus clotted up. No other lesion.

Meningitis.—76. F., $\frac{12}{12}$. Cerebro-spinal meningitis; pus in ventricles; otitis media; broncho-pneumonia; pleuritis.

127. F., 24. Basal tubercular meningitis; suppurative otitis media; chronic pelvic peritionitis involving fimbriæ chiefly; hæmatosalpinx; chronic peritonitis; small cavity in first dorsal vertebra containing some pus and caseous matter.

Infantile Palsy.—194. F., $1\frac{3}{12}$. Brain unusually firm; no naked eye evidence of meningitis; cavity in gray matter of anterior cornu of cervical region of cord; both middle ears filled with thick greenish yellow pus. Microscopical examination of spinal cord shows a destructive lesion of one anterior cornu (right). There is a cavity with ragged edges. There is some excess of nuclei round about the lesion, but the appearances of inflammation are not marked. A few vessels in medulla and in parts of cord not near the lesion show collections of leucocytes in their sheaths; no evidence of hærmorrhage; the pia of cord infiltrated with leucocytes (meningitis). Section of clot in basilar or vertebral artery show collections of cocci stainable with alkalin, or acid methylen blue solutions and by Gram's method.

Hydrocephalus.—138. M., 2. Lateral ventricles distended with clear watery fluid, slight but distinct evidence of some past inflammation of meninges and lining membrane of ventricles. Choroid plexuses adherent to floor of ventricles are thin and attenuated; bones of skull quite ossified; left 6th rib has been resected; left pleura universally adherent; no caseation; no tuberculosis.

Convulsions.—72. M., 10 weeks. Thin clot on Dural surface of right middle and posterior fossæ. From the pattern

it looks like oozing from pia arachnoid. Labour instrumental.

280. F., $\frac{3}{12}$. Both middle ears filled with muco-purulent fluid; lining membrane of tympana swollen and red.

Diseases of the Circulatory System.

Embolism.—60. M., 40. Gangrene of hand and arm. Antemortem polypi in both ventricles and right auricle; embolism of brachial artery; vessels of left arm plugged; yellow softening of right frontal convolutions; right kidney $2\frac{1}{2}$ ozs., left $10\frac{1}{2}$ ozs.; cortical atrophy of right, compensatory hypertrophy of left; punched out ulcers at bases of both vocal cords; left testicle atrophied and indurated.

148. F., 69. Left iliac and femoral veins plugged with firm decolorised clot; right and left pulmonary arteries plugged with granular decolorised clot similar to that in veins; large suppurating sore about right knee; emphysema of lungs; recent pleuritis; mucous polypus of uterus; aorta and branches very atheromatous.

233. F., 62. Cutaneous veins of both lower extremities varicose; all veins of right lower extremity clotted up; clot firm adherent; right and left pulmonary arteries embolised with clot like that in right femoral vein; chronic pelvic peritonitis; pyosalpingitis; remains of stump of uterine polypus at fundus; kidneys 14 ozs., surface coarsely granular but no apparent wasting of cortex; colour yellowish mottled with specks of red.

Endocarditis.—85. F., 46. General dropsy; viscera "cardiac." Pericardium universally adherent. Aortic cusps thickened and recurved, one being adherent to aorta. Aortic ring $2\frac{5}{8}$ in., both ventricles greatly hypertrophied with dilatation of left; aorta very atheromatous.

87. M., 27. Dropsy; viscera "cardiac"; hæmorrhagic infarcts of lungs; slight recent pericarditis; mitral flaps are much thickened, calcified, and the orifice greatly stenosed; aortic cusps are thickened and recurved; left ventricle dilated and hypertrophied; recent vegetations on mitral and aortic.

92. F., 28. Pericardium universally adherent; mitral

thickened and chordæ shortened; auricles greatly dilated; viscera cardiac; median ventral hernia.

96. F., 7. Vegetations on all four valves, but most on mitral; recent pericarditis; pericardium is covered with rough yellow lymph, and is adherent in front; several septic infarcts in lungs.

112. M., 50. Mitral thickened and calcareous; orifice stenosed; pneumonia; gray hepatisation; spleen 25½ ozs.; several fibrosed infarcts; kidneys "cardiac," numerous irregular depressions in cortex; a few small cysts.

135. M., 41. General dropsy; viscera "cardiac"; right pulmonary artery is blocked by a firm decolorised adherent clot; left artery free; the thrombosis is primary and not the result of embolism; aortic cusps thickened and recurved; aorta and branches in advanced condition of atheroma; ventricles much dilated, but scarcely at all hypertrophied; kidneys 7¾—10 ozs.; large area of cortical atrophy of front of lower half of right.

145. M., 43. General dropsy; heart 15 ozs.; aortic cusps thickened, calcareous and recurved; ventricles dilated and hypertrophied; aorta very atheromatous; viscera "cardiac"; large encysted abscess of peritoneal sac.

180. F., 56. Heart 15¾ ozs.; aortic cusps thickened and adherent; orifice not larger than goose quill; edges rough and long thin vegetations hang down into ventricle; mitral flaps thickened, calcareous and adherent; circumference 2·0 inches; viscera cardiac.

184. F., 38. Heart 12 ozs.; pericardium adherent; mitral flaps thickened and adherent; many coarse vegetations all round orifice, which is much stenosed; endocardium of left auricle also inflamed. Spleen 18½ ozs., soft; section surface red, through which amyloid malpighians are easily seen. Three large infarcts at anterior edge; two old and caseous, one pallid and firm; amyloid reaction with iodine; kidneys 12 and 8 ounces; large white; caseous infarct on left; no reaction with iodine; colloid degeneration of thyroid isthmus, which is size of walnut.

275. F., 14. Dropsy; jaundice; viscera "cardiac"; heart 20 ozs., pericardium adherent; aortic cusps thickened and recurved, two adherent; endocardium quite smooth, cavities dilated and their walls scarcely hypertrophied; gangrene of part of transverse colon and of ileum; hæmorrhagic infarcts of lungs.

277. F., 4. Heart 4 ozs.; acute hæmorrhagic pericarditis; surface rough with lymph; ring of recent vegetations around mitral; recent perihepatitis; thickening and adhesion of left pleura; induration and fibrosis of left apex and of lower lobe; bronchi dilated.

286. F., 46. Dropsy; heart 17 ozs.; hypertrophy without dilation of left ventricle; left auricle dilated and hypertrophied; the aortic cusps are extremely thickened, indurated and adherent; the aperture is not larger than a goose quill; endocardium quite smooth; hypertrophy of right heart; viscera "cardiac," some areas of cortical atrophy in kidneys; intramural myoma uteri about size of a walnut.

307. F., 15. Heart 13½ oz.; recent vegetations on aorta and mitral; aortic ring 2·25 ins., mitral 4 ins., aorta at beginning of transverse arch 2 ins.; pericardial surfaces covered with coarse shaggy lymph, adherent in front; left auricle and ventricle hypertrophied; hydrothorax: left lower lobe carnified, lungs indurated, brownish purple.

Arteritis (*aneurysm*).—118. M., 26. Aneurysm of ascending arch rupturing into pericardial sac. Atheroma of ascending and transverse portions of arch; aortic cusps thickened and recurved; about a pint of soft black clot in pericardial sac; thymus large, persistent.

197.—M., 24. Aneurysm, size of walnut just above and implicating aortic valve; lies external to pulmonary artery; aortic cusps slightly thickened and opaque; left ventricle hypertrophied and dilated; viscera cardiac; hæmorrhagic infarct in lung.

216.—M., 49. Aneurysm of descending thoracic aorta eroding tenth and eleventh dorsal vertebræ; aorta throughout very atheromatous; left hydrothorax with complete collapse of lert lung; viscera cardiac; cortical atrophy of left kidney.

229.—M., 63. Aneurysm of thoracic and abdominal aorta; rupture of wall into abdominal subperitoneal tissue; erosion of 11th and 12th dorsal vertebræ; the aneurysm is about 8 ins. long and 6 ins. broad; chronic peritonitis.

231. M., 33. Aneurysm of descending thoracic aorta, size of an orange. Lies over against the 5th, 6th, and 7th dorsal vertebræ, the bodies of which are eroded. The whole of the

thoracic arch was very atheromatous, and exhibited besides some small aneurysmal bulgings one well-marked globose aneurysm about the size of a walnut just below the origin of innominate. Heart 13 ozs.; hypertrophy of left ventricle. Lower lobes of both lungs are indurated and puckered from presence of large bands of pigmented fibrous tissue.

252. M., 52. Aneurysm, size of tangerine orange just below and outside origin of innominate. It is spheroidal, and almost completely blocked with firm laminated clot. On the other side of innominate is an aperture in aorta about the size of sixpence. This leads into an aneurysm about as big as a large walnut; it lies between carotid and trachea, of which latter several rings are quite eroded; though the mucosa is thinned, it is yet intact. Heart large; hypertrophy of left ventricle.

310. M., 40. Aneurysm of aortic arch, size of a pigeon's egg; wall thin; filled with firm brown laminated clot; the aperture is circular, $\frac{1}{8}$ inch in diameter, and lies just external to where left subclavian is given off, and much in the position of ductus arteriosus. The aortic arch is very atheromatous, but the rest of aorta and its branches are normal. The main pulmonary artery is much thickened, extremely dilated, and forms a kind of aneurysm, owing to the blockade of the left pulmonary at its commencement. The wall of left pulmonary is greatly thickened by fibrous deposit. The entrance into right pulmonary is much stenosed. There is considerable hypertrophy and dilatation of the right heart. Endocardium fairly normal. The left lung is firmly adherent and the pleura thickened; it is small and much indurated from the presence of closely packed pigmented fibroid tubercles. There is no breaking down of the pulmonary tissues. There are numerous though discrete and small collections of fibroid tubercles in right lung. A few tubercular ulcerations of small intestine.

Adipose Heart.—215 and 226.

Dilated Heart.—142. M., 64. Weight 26 ozs. No endocarditis; great hypertrophy and dilatation of both sides; no arteritis. Kidneys 7 ozs. each; capsules thick, adherent; surface coarsely granular; numerous cysts in cortex. Dropsy;

skin of penis sloughing. Large hæmorrhagic infarct in right lung.

313. F., 33. Heart 13 ozs. Endocardium normal; ventricles much dilated, with some hypertrophy, right side most; emphysema; viscera "cardiac"; stellate scar of gastric ulcer at middle of posterior cardiac surface; very cyanotic during life.

Varix.—157. F., 54. Varicose veins in both lower extremities; varicose ulcer of left leg; heart adipose; liver fatty; kidneys 4½ and 5 ozs.; capsules adherent; a few cysts in cortex. Brought in dead; death from loss of blood from bursting of varicose vein.

Diseases of the Respiratory System.

Bronchitis.—49. M., 68. Hypertrophous emphysema; œdema of lungs; suppurative bronchitis; œdema of laryngeal mucosa from epiglottis to cords. Some calcification at base of mitral flaps. Kidneys; capsules adherent, surface granular, consistence tough. Both inguinal canals are widely patent.

51. M., 60. Hypertrophous emphysema; suppurative bronchitis: lungs studded all over with small islets of soft consolidation (broncho-pneumonia). A few patches of pigmented fibroid tubercles. Aorta in advanced condition of atheroma. Some cortical atrophy of the kidneys.

57. F., 55. Lungs emphysematous; suppurative bronchitis; lobular pneumonia. Spleen 8 ozs., pallid and flabby as a whole, but is bestudded with numerous firm yellow nodules, varying in size from a pin's head to a pea; they have a somewhat suety appearance. Left inguinal pelvic and abdominal lymphatic glands are enlarged (some the size of pigeons' eggs), tough and indurated. They are fibrous without caseation. Chronic pelvic peritonitis. Microscopical examination of lungs show that it is "croupous," and therefore lobar with a lobular distribution. In the spleen the most marked feature is a hyaline fibrosis, affecting chiefly the malpighians or their vicinity, though in general distribution and extent this hyaline fibrosis is irregular, and seems to correspond with the yellow areas visible to the naked eye. The lymphatic glands show the fibrosis much more markedly, and it is less hyaline.

258. M., 64. Chronic pleuritis; emphysema; bronchitis; œdema. Faucial, pharyngeal, and aryepiglottic mucosa much swollen, œdematous tense shiny, colour dark blue.

300. M., 3. Emphysema; a few patches of collapse; bronchitis; patch of soft red friable pulmonary tissue about size of marble near apex of right lower lobe. Double otitis media.

302. M., 51. Hypertrophous emphysema; respirating mucosa covered with thick yellow mucus; black pigmented network of fibrous tissue ramifying throughout both lungs, studded at numerous points with round small fibrous nodules (disseminated quiescent fibroid tubercles). The meshes are very wide; at angle between testicle and epididymis is a small mass of cysts containing a thin opalescent fluid filled with spermatozoa. In apparent connexion with epididymis, not with testicle.

306. F., 76. Emphysema; bronchitis; œdema. Left ventricle hypertrophied. A few cysts in kidneys.

Broncho-pneumonia.—59. M., 29. Emphysema; bronchitis; broncho-pneumonia; consistence of both lungs resembles rather carnification than hepatisation: no recent pleuritis (influenza).

65. M., $4\frac{3}{12}$. Bronchi choked with muco-purulent fluid. Both lungs almost entirely consolidated; pleuræ covered with thin layer of lymph (influenza).

66. M., 35. Œdema of aryepiglottic mucosa; suppurative bronchitis; at centre of both lungs are areas of soft but fleshy greyish red consolidation (influenza). Chronic pneumonia of left lower lobe. Bronchi of this lobe much dilated and thickened. Right heart hypertrophied.

101. M., $3\frac{7}{12}$. Pus running from anterior nares; tonsils very large; acute emphysema; respiratory mucosa covered with pus; broncho-pneumonia of both lungs; bronchi dilated, thick; right heart dilated and hypertrophied.

105. F., $\frac{13}{12}$. Rickets; broncho-pneumonia of both lungs; mucosa of last part of ileum and whole of colon is pallid, granular, and covered with a yellow deposit; microscopical examination shows that the mucosa is much ulcerated, in places it is completely ulcerated away. Everywhere the mucosa and submucosa are infiltrated with large numbers of leucocytes. Upon the surface of mucosa is an exudation resembling the

membrane of diphtheria; it is crowded with cocci, bacilli, and long fungoid filaments. The bacteria are also present in mucosa and submucosa.

178. F., 1. About two-thirds of both lungs are broncho-pneumonic; kidneys 2½ ozs., pallid except at upper end of left, where there is a wedge-shaped area involving about one-sixth of the kidney substance: it is dark brownish blue in colour, and its consistence is considerably softer than that of the rest of the renal tissue.

304. M., $2\frac{4}{12}$. Considerable masses of yellow lymph on both pleuræ; both lower lobes are broncho-pneumonic; suppurative bronchitis; cadaveric softening of stomach; both middle ears are filled with greenish yellow pus; membranes intact; Microscopical examination of pus from ears (Gram.); large quantities of bacteria chiefly arranged as diplococci, some are single, in which case they are ovalish and larger than the double ones. Sometimes the latter have pointed ends. The transition stage is marked by a slight constriction, or even only a band. All are surrounded by the bright halo of the capsule. The foregoing description would identify these bacteria with micrococcus pneumoniæ crouposæ. The obvious inference is that the same virus gives rise to broncho-pneumonia in children, to croupous in adults.

297. F., 82. Wedge-shaped masses of fleshy consolidation in both lower lobes: colour blue-purple; easily breaks down; emphysema; pleuræ smooth and shiny; bronchitis. In right groin is a calcareous nodule the size of a Spanish nut; it is freely movable. It is the calcified end of the omentum (omental femoral hernia), which is drawn down tight and fixed in femoral canal. The left femoral ring is widely open, and a large sac of peritoneum lies over vein passing towards left labium. The right obturator foramen also contains a sac which will admit fore-finger for 1 to 1½ inch. Both the latter are empty.

Also 43, 50, 70, 97, 115, 119, 120, 176, 177, 214.

Pneumonia.—48. M., 54. Chronic pleuritis, hypertrophous emphysema; network of pigmented quiescent tubercles in both; right middle and lower lobes consolidated, fleshy, apparently unresolved lobar pneumonia. Duration of illness 5 months.

56. M., 18. Double acute pleuritis, thick masses of yellow

lymph in both sacs. Lower two-thirds of both lungs are subcrepitant, red, and somewhat fleshy. Duration of illness four weeks.

86. M., 37. Grey hepatisation right lung; left lower lobe is dark purple in colour, fleshy, sinks in water; a few grey and granular masses about root. Liver fatty; kidneys 10 and $9\frac{3}{4}$ ozs.

103. F., 35. Grey hepatisation of right middle lobe; bronchi plugged with fibrin; yellow lymph in pleural sac; spleen 4 ozs., breaking down at upper end; uterus in condition of recent delivery (five days). Mucosa covered with clot.

106. M., 32. Grey hepatisation of right lung; red of left. Pericardial surface covered with thick layers of shaggy lymph. Several angiomata in liver.

109. F., 34. Grey hepatisation of right lung, the lowermost part being in condition of purulent infiltration; spleen $9\frac{1}{4}$ ozs., recent infarct turning yellow in centre. Numerous small septic abscesses in kidneys.

154. F., 31. Red and grey hepatisation of right lung; liver fatty; spleen $4\frac{1}{2}$ ozs., almost diffluent. Left ovary converted into cyst with thin fibrous walls; contains clear watery fluid; about size of cocoanut. Right ovary atrophied, to it are adherent the fallopian fimbriæ. Hydrosalpinx.

158. M., 54. Left lung, red to grey hepatisation. Capsule of spleen enormously thickened. Liver and pancreas very hard. A few cysts in kidneys.

187. M., $3\frac{10}{12}$. Lymph on both pleuræ; grey hepatisation of right lung; red to grey of left. Mediastinal glands large, swollen, soft.

201. M., 37. Grey hepatisation of right lung. Adherent pericardium.

206. M., 42. Grey hepatisation of both lower lobes; old consolidation at apices. Spleen 13 ozs., capsule thickened; firm, yellowish with worm-eaten look. Kidneys granular. Microscopical examination of kidneys showed well-marked chronic nephritis. Most of the splenic tissue is necrosed. In the lungs the appearances are those of chronic interstitial pneumonia; there are a great many small giant cells in the centre of thickened and contracted alveoli. No evidence of tubercles. Vessels of spleen and of lungs contain cocci.

220. M., 42. Lungs emphysematous; much fluid and lymph in right pleural sac; right base carnified; left lung in condition of grey hepatisation, much lymph in pleural sac; heart 15 ozs. Mitral and aortic valves thickened and opaque. Only two aortic cusps, two being fused together.

236. M., 50. Emphysema; pleuræ studded all over with pigmented fibrous nodules the size of big pins' heads. No recent pleuritis; red hepatisation right upper lobe. Atheroma of arteries.

244. F., 36. Left pleura universally adherent (old); right smooth and shiny; right lung red, fleshy, smooth; section surface shows pallid areas of Y or irregular shape, so frequent in pneumonia of children (bronchioles plugged with imflammatory products). Four-fifths of left lower lobe and the immediately adjacent portion of upper lobe are gangrenous. Two sharply punched out ulcers of arytænoid mucosa. Liver very fatty.

262. F., $4\frac{7}{12}$. Grey hepatisation of right lung, with several patches of necrosis and a gangrenous cavity; much lymph and turbid fluid in pleural sac. Punched out ulcers at base of both vocal cords. Suppurative otitis media. Some superficial ulceration of intestinal glands immediately above ileocæcal valve. Punched out circular ulcer, diameter $\frac{1}{4}$ inch, involves whole of mucosa of colon. Some of the mesenteric glands are a little large and pink. This case was interesting, as the child was admitted for enteric fever, the pneumonia supervening. A sister was in hospital at same time with enteric.

285. M., 49. Chronic meningitis; fibrosis and puckering of apex of right lung; left lower lobe red, firm, fleshy; friable not very granular on section; superjacent pleura covered with hæmorrhagic lymph. Right otitis media; membrane absent; testicles atrophied.

304. M., 26. Grey hepatisation of both lungs.

Phthisis.—64. F., 34. Caseating tubercular pneumonia; very little fibrosis; numerous vomicæ; tubercular ulceration of colon.

69. M., 47. Left lung converted into fibrous tissue and vomicæ; pleuræ very thick. The "fibroid phthisis" of some. Right lower lobe in condition of red hepatisation; tubercular ulceration of ileum; cortical atrophy of half of left kidney.

81. M., 54. Hydrocele of both tunicæ vaginale; testicles indurated and atrophied; chronic pleuritis with adhesion; suppurative pleuritis; red to grey hepatisation of left lung; pneumonic tubercular phthisis, with excavations and hæmorrhage into cavities. Suppurative bronchitis.

93. F., 26. Pleuræ thick, adherent; lungs in upper third are vomicæ; in middle third are indurated and consolidated from aggregation of fibroid and caseating tubercles; spleen amyloid; kidneys large, white.

94. M., 40. Pleuræ much thickened and adherent; lungs consolidated from presence of caseating and fibroid tubercles; excavations; foramen ovale, patent; liver and spleen amyloid; kidneys small, white; patch of tubercular caseation in left.

102. M., 39. Pleuræ adherent over upper thirds; purulent effusion into right pleural sac and carnification of right lower lobe; upper halves of both lungs are in condition of tubercular pneumonia, breaking down into vomicæ; the consolidation is fibroid and caseous; suppurative bronchitis; diffuse superficial ulceration of tracheo-laryngeal mucosa. Some few tubercles in kidneys.

140. M., 33. Pleuræ thickened and adherent over upper lobes; lungs consolidated and excavated; right is also carnified from pneumothorax.

165. F., 19. Pleuræ thickened and adherent over upper thirds; lungs in condition of tubercular pneumonic phthisis with much excavation, caseation, and little fibrosis; heart 5¼ ozs.; several coarse, tough vegetations on mitral; numerous and large tubercular ulcers on jejunum ileum and colon.

207. F., 24. Tubercular pneumonic phthisis; much caseaation; some excavation and little fibrosis; pyo-pneumothorax.

247. M., 36. Chronic pleuritis with universal adhesion, and thickening on left side, partial on right; lungs extremely emphysematous; much puckered from fibrosis and presence of masses of fibroid pigmented tubercles; one small cavity only; suppurative bronchitis; some tubercular ulcers of intestine.

254. M., 50. Pleuræ thickened, adherent; tubercular pneumonic phthisis with considerable excavation; suppurative bronchitis; bladder hypertrophied; cystitis and suppurative prostatitis; right testicle not larger than an almond; left

testicle also atrophied and the epididymis much indurated from presence of fibro-caseous matter.

264. M., 26. Pleuræ thickened, adherent; left pyothorax with carnification of lung; lungs fibrosed, tubercular with large vomicæ in upper lobes.

273. M., 48. Pleuræ thickened, adherent; lungs consolidated from presence of pigmented fibroid tubercles; large cavity at right apex; small cavity at apex of left lower lobe. Larynx, trachea, left bronchus to cavity filled with blood clot; death from hæmorrhage from rupture of aneurysm of pulmonary artery projecting into cavity in left lower lobe; it is about size of a pea.

284. F., 54. Pleuræ thickened, adherent; lungs in condition of hypertrophous emphysema; much pigmented and indurated from presence of fibroid tubercles generally disseminated; bronchi thickened and dilated; no cavity properly so-called, but many minute cavities, possibly dilatations of bronchi. From these dilatations specimens showing the presence of tubercle bacilli were obtained.

298. M., 46. Pleuræ thickened, adherent; hypertrophous enphysema; lungs puckered from presence of fibroid tubercles, generally desseminated; these are very dense in upper lobes. Two nodules of encapsuled caseo-cretaceous matter at apices, but no cavities. Dilatation and hypertrophy of right heart. Three large annular tubercular ulcerations of colon, the first at ileo-cæcal valve.

Hæmorrhage.—225. M., 2 days. (Brought in dead.) Jaundice. Fluid blood issuing from nose and mouth. Two or three drachms of dark sanious fluid in left pleural sac. The whole of left lower lobe is consolidated, of a red purple hue, friable, easily broken down, extravasion of blood throughout this lobe. In left upper lobe and in right lung are a few small areas of congestion or extravasion; umbilical cord mummified; ductus arteriorus and foramen ovale quite open.

Cancer.—45. M., 52. Left lower lobe much indurated, especially near root, firm malignant fibrosis affecting the peri-bronchial tissue chiefly; secondary deposits in liver, mediastinal and abdominal lymphatic glands. Microscopical examination

of lung and liver shows that the neoplasm is a small, round-celled sarcoma.

52. M., 37. Induration and consolidation of left lung from fibroid growth proceeding from the root of lung towards, and becoming adherent to left auricle, the wall of which is about an inch thick, and its cavity practically obliterated. No enlarged lymphatic glands, but soft white nodule about size of pea in right kidney. Right hydrothorax; on microscopical examination the appearances of the lung are suggestive of an interstitial pneumonia, but in places alveoli occur, lined by cuboidal epithelium. The thickening of left auricle is due to presence of fibrous tissue and lymphoid cells, but there is considerable degeneration. The nodule in kidney is a proliferating adenoma, and is not necessarily associated with the state of affairs in thorax. The clinical history, the post-mortem, and histological appearances alike fail to decide the sequence of events in this case. Was the heart or the lung first affected, or were they simultaneous?

124. M., 55. Left lung consolidated, partly pneumonic, but chiefly malignant. The malignant deposit is a soft, white growth, massed chiefly about root, but penetrating far into lung. Numerous cavities filled with thick greenish pus. Pericardial surface covered with lymph, and sac filled with purulent fluid; no secondary deposits; mediastinal glands unaffected. Right lateral spinal curvature; thigh amputated at lower third; large amputation neuromata of sciatic and anterior crural. Microscopical examination of growth shows it to be lymphosarcoma; no obvious atrophic changes in lumbar region of spinal cord.

Pleuritis.—256. F., $2\frac{2}{12}$. Purulent fluid in right pleural sac, and visceral pleura covered with thick layer of yellow lymph. Right lung subcrepitant, but not distinctly pneumonic. Several ounces of purulent fluid in peritoneal sac; serous surface covered with yellow lymph, but no intestines are quite pallid.

Empyema.—199. F., 33. Left thorax much contracted; part of 5th rib has been resected; left pleura much thickened;

empyema cavity contains several ounces of yellow, thick pus; lung collapsed, but spongy; pericardium universally adherent; adhesions old, but thin; suppurative cerebro-spinal meningitis; some sanio-purulent fluid in lateral ventricles; numerous cerebral abscesses filled with thick yellow pus or red sanio-purulent fluid; they are most frequent in the basal ganglia, and most numerous in right hemisphere; the abscesses vary in size from a pea to a Spanish nut; none in cortex, but several close to wall of ventricles, one of the latter opens into right ventricle.

242. M., 48. Encysted empyema in lower half of right pleural sac; the pleura is much thickened; the empyema sac communicates with a gangrenous cavity of lung, in centre of consolidation about size of walnut; right lower lobe carnified, left lung in condition of red hepatisation; the pleura covered with yellow lymph.

312. M., 11. Left thorax much contracted; pieces of 5th, 6th, 7th, and 8th ribs have been resected. The surgical opening is surrounded inside with complete ring of new bone; left pleura much thickened, the fibrous thickening being densest at apex, wherein there is an encysted abscess, holding about 1 oz. The lung lies in costo-vertebral groove, and is quite carnified; right lung and pleura perfectly normal; two calcified mediastinal glands; splenic malpighians amyloid; suppurative cerebro-spinal meningitis; the pus is very thick along base of brain and posterior surface of cord; pus in both lateral ventricles; abscess about size of walnut in right frontal lobe; it is well delimited, and its wall is firm, almost thick. It abuts against the orbital convolutions and the corpus striatum; both middle ears are quite normal.

Pneumothorax.—110. F., 32. Both upper lobes are consolidated (pneumonic). In both are several large excavations. One of these opens into left pleural sac, which contains several pints of greenish purulent fluid; the visceral pleura on outer surface of both upper lobes is thickened, and both pleuræ are covered with soft greenish yellow lymph; there is no naked eye caseation or tuberculosis; liver fatty; chronic pelvic peritonitis.

Diseases of the Digestive System.

Gastric ulcer.—295. F., 41. Stomach large, distended; hour-glass contraction, dividing pyloric from cardiac end. The constriction is due to punched out ulcer (and its cicatrization) situated on lesser curvature. Right kidney 16 ozs., left $1\frac{1}{2}$ ozs. The latter is in condition of simple atrophy, the former of compensatory hypertrophy. Both pelves are dilated but the ureters are normal. Two foci of necrosis in right kidney; possibly the result of surgical interference, the right kidney having been suspected of mobility was tied up in its proper place. Some few vegetations on mitral.

Duodenal ulcer.—251. M., 36. Circular punched out, completely perforating ulcer of duodenum. Diameter from $\frac{1}{3}$—$\frac{1}{4}$ inch. The tissue around is much thickened. No peritonitis. Death from shock and collapse.

Postpharyngeal abscess.—145. F., $\frac{18}{12}$. Soft tissues of neck much swollen. Two encysted abscesses behind pharynx and below base of skull; both middle ears filled with pus; right membrane perforated; broncho-pneumonia. Two small caseous nodules in liver.

Diarrhœa.—149. F., 44. Eyeballs shrunken, skin of face and neck like parchment. Blood is dark, viscid, slimy, frothy, quite fluid. Bladder contracted. Fingers and toes flexed and the skin shrivelled. Gastro-intestinal tract presents little of note. Numerous small suety-looking masses in spleen. Cardiac cavities not distended. Lungs greatly engorged with blood from top to bottom; no friability of bases. In both lungs ramifies a fine network of pigmented fibroid quiescent tubercles. No breaking down of pulmonary tissue. Microscopical examination of lung shows the usual appearances of quiescent tubercle. In the spleen are spheroidal areas of fibrous tissue and quite similar appearances in liver. All these spheroidal nodules show large cells, which are presumably the skeletons of giant cells. Taking the appearances presented by the sections of all three organs together, I am of opinion that they show a healed and quiescent condition after an attack

at some distant period of acute miliary tuberculosis. Pieces of only these three organs were reserved for examination.

190, 191, 245, 253, 255 cases of infantile diarrhœa.

Peritonitis.—100. F., 23. Ulceration of vermiform appendix. Fæcal calculoid of size and appearance of date stone.

121. F., 76. Perforating gastric ulcer.

132. M., 70. Ulceration of vermiform appendix. Fæcal calculoid protruding through ulceration. About half a pint of purulent fluid and lymph in right pleural sac. Lungs very emphysematous. In right costo-vertebral groove the pleura over an area of 5 by 2 inches is densely thick, quite white, resembling a plate of ivory.

167. M., 58. Subperitoneal cellular tissue densely thick; chronic and acute suppurative peritonitis; left lower lobe in condition of red hepatisation; pleura covered with lymph; no infected lympathic glands, no secondary deposits; coronary arteries atheromatous. Miscroscopical examination showed that the growth was composed of fibrous tissue enclosing occasional alveoli lined by columnar epithelium. Carcinoma.

212. F., 60. Chronic peritonitis with much thickening of subperitoneal cellular tissue; peritoneum much pigmented.

222. M., 10. Chronic and tubercular peritonitis; fæcal fluid in peritoneal sac; some small ulcers just above ileocæcal valve; right tubercular pleuritis, caseous mass in middle lobe; right chronic otitis media.

248. M., 4½. Tubercular; fæcal fistula from middle of ileum opening close to umbilicas; mesenteric glands caseous and large. No other tuberculosis.

271. M., 48. Slight purulent discharge issuing from urethral meatus. Much pus in peritoneal sac with diffuse suppuration of subperitoneal cellular tissue of lower half of abdomen, of pelvis, and round about root of penis. Urethra bladder and gastro-intestinal tract nil. Testicles nil; kidneys 8 ozs.; capsules thickened, adherent, surface granular, cortex diminished; colour pale red; consistence firm. Left ventricle hypertrophied. Other viscera nil. The p.m. examination threw no light on the cause of the suppuration.

292. M., 7. Ulceration of vermiform appendix; fæcal calculoid.

Cirrhosis of liver.—143. M., 56. Deep jaundice; dropsy moderate; liver 96 ozs.; surface much fissured and irregular; no thickening of capsule or chronic peritonitis.

144. M., 56. Almost no jaundice; dropsy considerable; liver 47 ozs.; surface regularly uneven. Peritoneum everywhere much thickened; fibrosis with caseation of apices of both lungs.

Icterus gravis.—122. F., 23. Deep jaundice. Both lower and part of upper lobes in condition of red to grey hepatisation. Superjacent pleuræ, smooth and shiny; liver 35½ ozs.; colour dark brown; externally, mottled with some yellowish areas; the brownish red portion is of firm consistence, and to naked eye seems little altered; the bright yellow portion is soft, flabby, and seems to have lost its characteristic liver appearance; shape of liver normal; gall bladder contains some 1—1½ ozs. of dark green bile; no obstruction of biliary ducts; blood is fluid and dark. Microscopical examination of the lung showed that the capillaries are greatly engorged; the alveoli are crowded with leucocytes and red corpuscle, very little fibrin. Adhering to almost all the cells in the alveoli (but also in a few vessels) are myriads of bacteria, which stain with logwood, but better by Gram's method; under high powers these are seen to be mostly diplobacilli with round or pointed ends. The firm red portion of liver is marked by the presence of large bile ducts around the outside of the lobules, by the intense hyperæmia of the rest of the lobule, and by the absence of hepatic cells; the soft, bright yellow portion is marked by general disorganisation of the liver substance, the lobulation is only with difficulty perceptible, although in places there are collections of normal-looking cells. The connective tissue elements are fluffy-looking and do not stain well; there is no hyperæmia of the yellow portion. The difference between the two portions may be expressed by saying that the firm red portion is liver tissue minus the cells. tissue in which the skeleton of the lobules is still discernible, while the yellow areas retain all the elements of hepatic tissue, but which is in condition of profound disorganisation. It is obvious that the red indurated part is of some standing; it is difficult to believe that it is a condition antecedent and leading up to that of the soft yellow state.

161. M., $2\frac{2}{12}$. Jaundice. Liver $15\frac{1}{2}$ ozs., of an orange yellow colour, very flabby and flaccid but not soft or doughy, is perfectly homogeneous; gall bladder contains 2 to 3 drachms of thin yellow bile; other viscera nil. Microscopical examination showed that no trace of ordinary liver tissue remains, the lobulation can only be recognised by the transverse section of portal canals or hepatic veins; the rest of the lobule is made up of the disorganised remains of liver cells and connective tissue debris; in a few places there are collections of round, indifferent, blue staining cells, these are chiefly about the portal side of the lobules; there is no evidence of an antecedent hyperæmia.

A quite similiar liver was found in case of syphilis. 151.

Cancer.—188. M., 40. Epithelioma of tongue; excision; diffuse suppuration of cervical cellular tissue; septic pneumonia.

70. F., 25. Columnar epithelioma of descending colon; the gut is obstructed, and the cancerous mass is sloughing externally and caseating centrally; secondary deposits in liver. Microscopical examination of intestine and liver showed closely-packed tubules lined by columnar epithelium; the cancer is an adenomatous carcinoma; many of the follicles contain granular amorphous debris and some elongated cells arranged occasionally corm-like.

63. F., 56. Colloid of peritoneum chiefly affecting omentum and pelvic peritoneum, possibly originating in ovary.

171. F., 54. Jaundice liver, 108 ozs.; hard cancerous mass on right lobe; rest of liver soft, with numerous spheroidal areas of degeneration or inflammation; no obstruction, though great distension of some bile ducts; punched out gastric ulcer in lesser curvature, $2\frac{1}{2}$ inches from pylorus; stomach contains some bloody fluid; the intestines are loaded with thin tarry fæces. Microscopical examination showed alveoli filled with large roundish cells.

126. M. Jaundice; cancer of gall bladder invading liver by continuity; gallstone embedded in cancerous mass; small secondary deposit in lung; pneumonia; coronary arteries calcified.

134. F., 54. No jaundice; cancer of gall bladder; no gallstones; duodenum and transverse colon are adherent to cancerous mass and in communication therewith by fistulous openings; a few soft white secondary deposits in liver.

Diseases of Lymphatic System.

Cancer.—282. F., 56. Mediastinal glands very large, white, soft; some quite disorganised in centre; secondary deposits in spleen, both kidneys, intestine, liver, and lungs; was operated on for floating kidney. Microscopical examination showed that the growth was a small spindle-celled sarcoma.

Diseases of the Suprarenal Bodies.

182. M., 37. Diffuse pigmentation of skin generally; pigmentation of scrotum and of mouth specially deep; angular curvature; the adrenals are represented by fibro-caseo-cretaceous masses about the size of almonds; the sympathetic ganglia in immediate vicinity are large and seem fibrosed; pituitary body indurated and shrunken; the peritoneum and upper half of abdomen is bestudded with small fibro-caseous nodules.

Diseases of the Urinary System.

Nephritis.—237. M., 39. Cuticle peeling in large flakes; thin deposit of granular fibrin all over pericardium. Kidneys 9½ ozs.; capsules slightly adherent; surface granular; consistence flabby; cortex somewhat diminished; colour drab mottled with numerous specks of purple and yellow; large white kidney contracting; no naked-eye evidence of arteritis or of arterial hypertrophy.

239. F., 68. Kidneys 4¾ and 5 ozs.; capsules thick, adherent; surface granular; consistence tough to induration; colour red; numerous cysts in cortex. Heart 27 ozs.; great hypertrophy of left ventricle; calcareous deposit in mitral and aorta; aorta and other arteries very atheromatous; thyroid very large, colloid, cystic.

268. M., 42. Abscess of left kidney bursting into left pleural sac and setting up suppurative plueritis; the left lung is collapsed and carnified; right kidney nil; capsule of left kidney much thickened; walls of bladder somewhat hypertrophied; slight stricture of urethra just in front of triangular ligament; right tempero-spheroidal and fronto-orbital convolutions are in condition of yellow softening. Leucodermia of penis, scrotum, right forearm and scalp.

301. F., 48. Kidneys 5½ ozs.; capsules thickened, adherent surface granular, cortex wasted; very pale and flabby; arteries atheromatous, especially those of abdomen, and notably the splenic; heart 20 ozs.; hypertrophy of left verticle; thin layer of coarse granular lymph on pericardium; red hepatisation of right upper lobe.

Cancer.—315. F., 42. Right kidney 34 ozs., left 13 ozs.; right is one mass of cancer growing into renal vein, numerous masses of deposit in left; they are soft, spheroidal, granular, reddish, delimited deposits; deposits in lungs and left iliac muscle which is quite disorganised; two deposits in brain, one in right frontal, one in right parietal region; both implicate the cortex; they are spheroidal, and the deposit in parietal region is 1½ inches in diameter; there was left hemiplegia.

Diseases of the Reproductive System.

279. F., 65. Recurrent scirrhus; sacral bedsores with necrosis of bone; nephritic abscesses; cystitis; secondary deposits in pleuræ; mucous polypus at fundus uteri.

294. F., 47. Recurrent scirrhus; deposits in cranial bones, ribs, pancreas, liver and adrenal; subperitoneal myomata uteri.

Cancer.—260. F., 49. Uterus diffusely infiltrated with firmish new growth; cervix only is uninvaded. Left ovary adherent, cystic with cancerous deposit in wall, but its chief contents are green fluorescing pus. The rectum is invaded by continuity. Left kidney atrophied from pressure on ureter in pelvis. Secondary deposits in liver, lymphatic glands and in lungs.

278. F., 56. Colloid of left ovary; wall of cyst unusually thin; had burst into peritoneal sac, which contained some pints of thin colloid substance.

Diseases of the Organs of Locomotion.

77. M., 6. Caries of spine; angular curvature; bodies of tenth, eleventh, and twelfth dorsal, and first and second lumbar vertebræ are quite destroyed. Prevertebral abscess. Left empyema with thickening of pleura and carnification of lung. Liver, spleen, and kidneys amyloid.

88. M., $\frac{4}{12}$. Surgical wound on inside of left thigh communicates with cavity of hip joint, the capsule of which is much thickened. The joint cavity is distended with sanio-purulent fluid, and the femoral head is in great part absorbed. The ligamentum teres remains attached to acetabulum, the bone of which is exposed and bare. All other joints healthy. The prepuce had been recently removed for phimosis.

289. F., 5. Periosteal sarcoma of femur after injury. Thigh is quite enormous from the cancerous enlargement which has invaded the pelvis by continuity. The growth in pelvis and lower abdomen is almost as extensive as on thigh; secondary deposits in pleura and in lungs; round-celled sarcoma.

Injuries and Surgical Diseases.

293. M., 5. Burn; skin much burnt; purulent discharge from right ear; membrane perforated; middle ear full of pus.

67. M., $\frac{4}{12}$. Asphyxia; right sternomastoid much thickened in its middle third; it is three to four times as thick as that of the opposite side. On microscopical examination the thickening was found to consist purely of fibrous tissue.

68. M., 32. Cut throat; wound, which passed through thyrohyoid ligament backwards, dividing epiglottis, is in great measure healed, as is also a tracheotomy opening; pneumonia with gangrene of right upper lobe; skin deeply jaundiced; liver 75 ozs., of a bright yellow colour, but with this exception, normal in consistence and structure; no obstruction. On microscopical examination the liver was found to present appearances exactly similar to those seen in cardiac congestion.

192. F., 64. Rupture of liver; all the lacerations show signs of union (3 days); about a pint of bloody fluid in peritoneal sac; no peritonitis; large firm clot in right adrenal; fracture of four ribs; surgical emphysema of thorax and upper part of abdomen; red hepatisation of right upper lobe; soft yellow spheroidal tumour, about size of walnut, in fundus uteri; the os uteri externum is quite closed; thyroid large, firm, fleshy, a parenchymatous hyperplasia without colloid degeneration.

44. M., 56. Fracture of humerus; transverse central fracture, united by thick and ossified periosteal callus; lower

fragment, the end of which is rather rounded, fits into the upper fragment like a cup and ball; the osseous tissue of upper fragment is much thinner than that of lower fragment, the end of the latter being solid with dense bone; arteries atheromatous; emphysema; bronchitis.

116. M., 36. Fracture of ribs and clavicle; lower lobe of right lung lacerated.

147. M., 29. Fracture of ribs, sternum, clavicle, leg and thigh; laceration of liver, which is large, yellow, and hard; sebaceous cyst size of hen's egg lies in front of right wing of hyoid.

179. M., 24. Extensive and much comminuted fracture of vault and base of skull; brain much bruised and ecchymosed; bones of skull very thin.

202. F., 60. Fracture of base of skull; some bruising of cortex.

218. M., 15. Depressed fracture of right parietal region; fracture passes into orbit; trephining; amputation of thigh in upper third.

263. M., 50 (circa). Fracture of base. Right frontal, orbital and temporo-sphenoidal convolutions are seat of extensive extravasation; thickish clot in all the fossæ except left orbital; in one kidney is a soft spheroidal tumour about size of walnut; it is situate in cortex and projects from surface; it is full of large vessels; it is probably, from its appearance, an angioma, but it may be a highly vascular proliferating adenoma; I have met one similar example before.

270. M., 7. Extensive and much comminuted fracture of base; right upper and lower jaws also fractured; laceration of brain.

160. F., 70. Cellulitis of leg (traumatic); arteries very atheromatous; lungs emphysematous.

84. M., 40. Extravasation of urine; floor of membranous urethra full of large irregular holes; no obvious stricture, though the membranous urethra in its anterior portion is thickened; bladder hyperthrophied; ureters dilated; suppurative cellulitis.

95. M., 53. Extravasation of urine; perinæal surgical wound; suppurative cellulitis; posterior 2 inches of penis in condition of slough; moderate cystitis; suppurative parotitis; liver fatty; mitral stenosis.

246. M., 60. Extravasation of urine. Diffuse cellulitis; sloughing of posterior part of penile urethra; tight stricture; bladder hypertrophied, sacculated; cystitis; mitral and aortic valves thickened, indurated, and stenosed from calcareous deposit; lungs very emphysematous, apices puckered and indurated from presence of pigmented fibrous tissue.

141. M., 71. Prostatic abscess. Left half of prostate the size of a walnut; contains an encysted abscess filled with greenish yellow pus; wall of abscess cavity is quite smooth; numerous hard black calculi, two of which are as big as small peas. Pneumonia.

219. M., 71. Cystotomy; hypertrophy of prostate; prostate tunneled; laceration of bladder, escape of urine into peritoneal sac; peritonitis; omentum united to bladder by old adhesions; some omentum projects through suprapubic wound; prostatic urethra is about 2 inches long, and it admits the passage of forefinger easily; large hydrocele of left tumea vaginalis.

152. F., 48. Intestinal obstruction; several bands, quite taut, fixed to fundus uteri; between there is nipped a coil of ileum; the included knuckle is black and swollen; no recent peritonitis; umbilical hernia; uterus very large from presence of myomata, projects into lower part of abdomen; in wall of left ventricle is a patch, about size of a florin, of fibrous myocarditis; it involves the whole thickness of the cardiac wall, which is here depressed, almost sacculated; abdominal section had been performed.

156. F., 67. Intussusception. Ileum invaginated into caput coli; the mass is about 9 inches long; emphysema; hypostatic pneumonia; in thyroid isthmus is a tumour about size of walnut, shape somewhat irregular; consists of a collection of cysts, the contents of which are thin brownish fluid, and the walls chiefly fibrous, but calcified in parts; the lateral lobes are atrophic.

210. F., 35. Intussusception; tumour 14 inches long lies in position of descending colon; the invagination has apparently begun at ileo cæcal valve, as some ileum and cœcum are implicated.

249. F., 42. Intestinal obstruction. Lower half of decending colon much stenosed from fibrous thickening of its walls and

also from a further mass of fibrous tissue lying between kidney and pelvis. The fibrous mass is riddled with fistulous passages which are in communication with the gut and also with the bladder by a very small aperture. Mucosa of colon thickened and ulcerated. Left kidney apparently normal; diffuse suppuration of right. Chronic peritonitis. Liver 50 ozs., a typical example of cirrhosis. Ventral hernia about size of a walnut, half way between umbilicus and pabes.

54. F., 73. Femoral hernia; left; operation for strangulation; peritonitis; calcaseous atheroma of most arteries; mitral rigid from calcaseous deposit at base.

78. M., 21. Strangulated right inguinal. Knuckle of ileum about 12 inches from valve is pinched up in canal and constricted at internal ring. No operation, as it was supposed the hernia had been returned by taxis under anæsthetic.

129. F., 60. Umbilical hernia. Strangulation of knuckles of ileum reduced by operation. Mass of omentum adherent to sac. The knuckle of gut which was strangulated is 3 inches long, is 13 feet from pylorus, is of a brownish purple hue and still bears the marks of the constriction.

Acute peritonitis.—238. M., $\frac{14}{12}$. Radical cure of left inguinal hernia. Left testicle and tissues of cord much swollen. Rupture of œsophagus. Rickets.

316. F., 50. Strangulated left femoral hernia. Knuckle of gut gangrenous at operation, stretched to wound.

89. M., 27. Amputation of left hip joint for tubercular disease after a kick on hip. Left innominate bone covered with dense mass of fibrous tissue, which is channeled up by fistulous passages filled with pus. No evidence to the naked eye of tuberculosis on any part of the body. No amyloid reaction with iodine. The head of this femur had been excised some time before, and miscroscopical examination confirmed the presence of tubercles. No bacilli were found.

211. M., 28. Amputation of little toe. "Delirium tremens."

MEDICAL REGISTRAR'S REPORT FOR THE YEAR 1891.

By Dr. WILLS.

Number of patients in Hospital, Jan. 1st, 1891		72
" " , Dec. 31st, 1891		85
Admitted to Medical Wards during the year		1,092
Of these—Males	624	
Females	468	
Average number of patients in Hospital		72·19*
Average stay in Hospital of each patient		24·2 days
Recovered or relieved		908
Males	500	
Females	408	
Unrelieved, including those sent to Surgical or Obstetrical Wards		33
Males	23	
Females	10	
Died		150
Males	101	
Females	49	

The mortality during the year was 13·74 per cent.

* *The Hospital Wards were closed for some weeks for cleaning during the summer.*

TABLE A.

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Sex. Females.	Sex. Total.	Age. Under 5 yrs.	Age. 5—10.	Age. 10—20.	Age. 20—30.	Age. 30—40.	Age. 40—50.	Age. 50—60.	Age. Over 60.	Result. Death. M	Result. Death. F	Result. Unrelieved. M	Result. Unrelieved. F	Result. Relieved. M	Result. Relieved. F	Remarks.
GENERAL DISEASES:																						
Group A:																						
Scarlatina	1	2	2	2	3	4	7	1	3	3	...	...	...	...	...	...	...	3	1	...	3	
Morbilli	7	...	...	2	6	3	9	4	1	1	3	...	...	...	...	...	...	...	...	6	3	
Enteric fever	8	5	8	4	15	10	25	2	4	7	8	4	...	...	...	3	2	...	...	12	8	
Diphtheria	2	...	2	6	7	3	10	7	2	1	...	...	...	...	...	1	1	...	...	6	2	
Febricula	1	...	2	...	2	1	3	2	...	1	...	...	...	...	...	...	...	...	...	2	1	
Influenza	...	41	1	2	24	20	44	...	1	19	9	11	3	1	...	...	...	...	...	24	20	
Erysipelas	6	1	...	5	7	5	12	3	1	2	2	1	2	1	...	2	1	...	...	5	4	
Pertussis	6	1	...	3	7	3	10	9	...	1	...	...	...	...	...	1	1	...	1	6	1	
Intermittent fever	3	2	1	1	7	...	7	...	...	...	3	3	...	...	1	...	...	...	...	7	...	
Syphilis:																						
1. Congenital	1	2	...	...	3	...	3	2	...	...	1	...	...	...	...	...	...	...	...	3	...	
2. Acquired	2	2	2	...	3	3	6	...	...	...	2	2	2	...	...	...	...	...	...	3	3	
Gonorrhœa	...	1	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	
Group B:																						
Poisons:																						
Alcohol	...	1	1	...	...	2	2	...	...	...	...	1	...	1	...	...	...	...	...	...	2	
Opium	...	...	...	2	1	1	2	...	...	1	1	...	...	...	...	...	...	...	...	1	1	
Apomorphine	...	...	...	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	
Carbolic Acid	...	...	1	...	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	
Lead	...	1	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	
Mercury	...	...	...	1	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
Phosphorus	...	...	...	2	...	2	2	1	...	...	...	1	...	...	...	...	...	...	...	...	2	
Group C:																						
Developmental Diseases:																						
Debility	...	...	...	1	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Group D:																						
Not classified:																						
Acute Rheumatism	25	15	7	18	33	32	65	...	7	21	26	7	3	1	...	1	1	...	...	32	31	
Subacute ditto	4	7	...	4	5	10	15	...	...	2	3	4	4	2	...	...	...	...	...	5	10	
Chronic ditto	1	2	1	...	4	...	4	...	...	...	...	1	1	1	1	...	...	...	...	4	...	
Gout	1	2	2	3	4	4	8	...	...	...	1	1	3	2	1	...	...	...	...	4	4	
Tuberculosis	6	2	...	2	8	2	10	6	1	2	1	...	...	...	...	7	1	...	...	1	1	
Rickets	2	3	1	2	7	1	8	8	...	...	...	...	...	...	...	...	...	...	...	7	1	
Anæmia	11	3	3	10	3	24	27	...	...	13	21	2	1	...	...	...	...	...	...	3	24	
Pernicious anæmia	2	...	...	...	1	1	2	...	...	...	...	1	...	1	...	1	...	...	...	...	1	
Splenic anæmia	...	1	...	1	2	...	2	2	...	...	...	...	...	...	...	...	...	...	...	2	...	
Leucocythæmia	...	1	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Diabetes	2	1	1	3	6	1	7	...	...	...	2	1	...	3	1	...	...	...	...	6	1	
Purpura	1	2	1	3	6	1	7	...	2	2	2	1	...	...	...	1	...	...	...	5	1	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Sex. Females.	Sex. Total.	Age. Under 5 yrs.	Age. 5—10.	Age. 10—20.	Age. 20—30.	Age. 30—40.	Age. 40—50.	Age. 50—60.	Age. Over 60.	Result. Death. M	Result. Death. F	Result. Unrelieved. M	Result. Unrelieved. F	Result. Relieved. M	Result. Relieved. F	Remarks.
DISEASES OF THE NERVOUS SYSTEM:																						
Brain:																						
Hemiplegia	3	1	2	1	5	2	7	...	...	...	1	1	3	2	...	...	...	...	...	5	2	
Tumour	...	2	1	1	3	1	4	1	1	1	...	...	1	...	...	...	1	2	...	1	...	
Abscess	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hydrocephalus	2	...	...	...	...	2	2	1	...	1	...	...	...	...	...	...	2	...	...	...	...	
Meningitis	3	2	...	...	3	2	5	5	...	...	...	...	...	...	...	3	2	...	...	...	...	
Cord:																						
Acute myelitis	2	1	...	...	2	1	3	...	...	...	...	1	...	...	2	...	...	...	...	2	1	
Acute anterior poliomyelitis	1	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	
Spastic paralysis	1	1	2	...	4	...	4	...	...	...	...	2	1	1	...	...	...	...	...	4	...	
Tabes dorsalis	2	1	1	1	5	...	5	...	...	...	1	2	...	1	1	...	...	...	...	5	...	
Progressive muscular atrophy	1	...	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
Friedreich's disease	1	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	
Chronic spinal meningitis	...	...	...	1	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	
Various:																						
Sciatica	1	2	...	1	3	1	4	...	...	1	1	1	...	1	...	...	...	...	...	3	1	
Alcoholic paralysis	...	...	1	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	
Diphtheritic paralysis	...	...	...	2	1	1	2	...	1	1	...	...	...	...	...	...	...	...	...	1	1	
Laryngismus stridulus	...	...	...	2	...	2	2	2	...	...	...	...	...	...	...	...	...	...	...	...	2	
Epilepsy	2	2	1	1	3	3	6	...	...	...	...	4	2	...	...	...	...	...	...	3	3	
Hysteria	9	6	2	2	5	14	19	...	...	4	7	6	2	...	...	...	...	1	...	4	14	
Infantile convulsions	1	1	1	2	1	4	5	4	...	1	...	...	...	...	...	1	1	...	...	...	3	
Chorea	7	6	1	4	5	13	18	...	...	4	12	2	...	...	...	1	...	...	...	4	13	
Facial paralysis	...	2	1	1	1	3	4	...	1	3	...	...	...	...	...	...	...	...	...	1	3	
Nervous shock	1	...	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	
Neuralgia	...	2	3	2	4	3	7	...	...	...	...	1	4	2	...	...	...	...	...	4	3	
Mental:																						
Idiocy	1	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	1	...	...	...	
General paralysis of the insane	3	2	1	...	6	...	6	...	...	...	...	3	3	...	...	...	...	2	...	4	...	
Mania	...	1	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	
Melancholia	1	...	1	...	1	1	2	...	...	...	1	1	...	...	...	...	...	1	...	...	1	
Delusional insanity	1	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	
Delirium tremens	...	...	...	1	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	
DISEASES OF THE CIRCULATORY SYSTEM:																						
Dilated heart	3	4	2	...	3	6	9	...	...	...	...	2	3	1	3	1	...	...	...	2	6	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex.			Age.							Result.						Remarks.
					Males.	Females.	Total.	Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Death.		Unrelieved.		Relieved.		
																M	F	M	F	M	F	
DISEASES OF THE CIRCULATORY SYSTEM—*continued*—																						
Endocarditis (not arising in hospital):																						
Mitral:																						
1. With presystolic murmur	1	1	...	1	1	2	3	...	...	...	1	...	1	1	...	1	...	...	...	...	2	
2. With systolic murmur	3	1	4	...	1	7	8	...	...	...	3	1	1	2	1	...	...	...	...	1	7	
3. With double murmur	4	7	1	3	4	11	15	...	1	7	2	3	2	...	...	1	2	...	...	3	9	
Aortic:																						
1. With systolic murmur	...	...	1	...	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	
2. With double murmur	5	7	1	5	16	2	18	...	...	2	6	3	4	2	1	6	1	...	...	10	1	
Ulcerative	1	1	1	1	2	2	4	...	...	1	2	...	...	1	...	2	1	...	1	...	...	
Pericarditis	...	...	...	1	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	
Angina pectoris	...	...	...	1	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	
Cyanosis	1	...	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	
Aneurysm thoracic	4	...	1	2	7	...	7	...	...	...	...	6	...	...	...	...	...	2	...	5	...	
" abdominal	3	1	1	1	5	1	6	...	...	...	3	...	1	...	1	...	...	...	...	5	1	
Pulmonary embolism	...	...	1	...	1	...	1	...	...	...	...	1	2	...	...	...	...	...	...	1	...	
DISEASES OF THE RESPIRATORY SYSTEM:																						
Acute laryngitis	4	...	...	...	4	...	4	1	...	...	...	...	2	...	1	1	...	...	...	3	...	
Chronic "	2	...	...	1	2	1	3	...	...	...	...	1	...	2	...	1	...	...	...	1	1	
Acute bronchitis	5	1	2	15	8	15	23	17	2	2	...	...	...	2	...	...	1	...	...	8	14	
Chronic "	13	13	2	6	21	13	34	1	1	...	4	3	4	12	9	...	2	...	...	21	11	
Bronchiectasis	3	1	...	...	4	...	4	...	...	4	...	...	...	...	...	1	...	...	...	3	...	
Lobar pneumonia	40	30	5	8	67	16	83	4	3	20	31	13	8	3	1	17	...	...	...	50	16	
Lobular "	9	8	4	5	12	14	26	21	4	...	...	...	1	...	...	4	5	...	...	8	9	
Gangrene of Lung	...	...	1	...	1	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	
Phthisis	33	21	8	18	49	31	80	...	2	11	20	22	16	6	3	13	9	3	...	33	22	
Emphysema	2	2	1	1	4	2	6	...	...	...	...	1	2	1	2	1	...	...	...	3	2	
Malignant disease of lung	1	...	1	...	1	1	2	...	...	...	1	...	...	1	...	1	1	...	...	...	...	
Syphilitic disease of lung	1	...	...	...	1	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	
Pleurisy:																						
1. Without effusion	6	5	...	3	10	4	14	...	...	1	6	3	4	...	...	...	...	...	...	10	4	
2. With effusion	5	2	3	4	11	3	14	...	...	4	5	3	...	1	1	...	1	...	1	11	1	
3. Empyema	4	4	...	3	8	3	11	6	2	...	1	1	1	...	...	3	...	...	...	5	3	
Pneumothorax	1	...	...	1	1	1	2	...	...	...	2	...	...	...	...	1	...	...	...	...	1	
Asthma	...	...	1	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	
Mediastinal tumour	2	...	...	...	2	...	2	...	1	...	1	...	...	...	...	1	...	...	...	1	...	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Sex. Females.	Sex. Total.	Age. Under 5 yrs	Age. 5—10.	Age. 10—20.	Age. 20—30.	Age. 30—40.	Age. 40—50	Age. 50—60.	Age. Over 60.	Result. Death. M	Result. Death. F	Result. Unrelieved. M	Result. Unrelieved. F	Result. Relieved. M	Result. Relieved. F	Remarks.
DISEASES OF THE DIGESTIVE SYSTEM:																						
Mouth:																						
Stomatitis	1	...	...	1	1	1	2	2	...	...	...	...	...	...	...	...	...	...	...	1	1	
Pharynx and Œsophagus:																						
Tonsillitis	11	6	2	8	8	19	27	2	1	5	14	4	1	...	...	...	...	...	...	8	19	
Post-pharyngeal abscess	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	
Stricture of œsophagus	2	2	...	...	4	...	4	...	...	1	...	...	...	2	1	2	...	...	...	2	...	
Stomach:																						
Dyspepsia	2	3	4	3	5	7	12	...	...	...	3	4	3	1	1	...	...	...	...	5	7	
Acute gastritis	1	...	...	2	3	...	3	...	...	1	1	...	...	1	...	...	...	...	...	3	..	
Gastric Ulcer	11	8	4	5	6	22	28	...	...	4	11	5	4	3	1	2	2	...	...	4	20	
Carcinoma	2	2	1	1	5	1	6	...	...	...	...	...	1	2	3	1	1	1	...	3	...	
Dilatation	1	...	...	1	2	...	2	...	...	...	...	1	1	...	...	...	...	...	...	2	...	
Vomiting	...	2	2	2	2	4	6	1	...	2	...	2	...	...	1	...	...	...	...	2	4	
Intestines:																						
Diarrhœa	2	3	12	5	12	10	22	9	2	...	4	4	3	...	...	1	1	...	...	11	9	
Constipation	3	3	1	4	3	8	11	2	1	3	2	1	2	...	...	...	...	...	...	3	8	
Colic	1	1	1	4	4	3	7	...	...	1	1	1	2	1	1	...	...	...	...	4	3	
Typhlitis	1	1	3	...	3	2	5	...	...	1	2	...	2	...	...	...	...	...	...	3	2	
Enteritis	2	...	1	...	1	2	3	...	...	...	...	1	2	...	...	...	1	...	...	1	1	
Ulcerative colitis	...	1	1	...	2	...	2	...	...	...	1	1	...	...	...	1	...	...	...	1	...	
Duodenal ulcer	...	...	1	1	1	1	2	1	...	...	...	...	...	...	1	1	1	...	...	...	...	
Stricture	1	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	
Malignant disease	...	2	...	...	2	...	2	...	...	...	...	...	1	1	...	1	...	...	...	1	...	
Dysentery	1	1	...	...	2	...	2	...	...	...	1	1	...	...	...	...	...	...	...	2	...	
Prolapse of rectum	1	...	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	
Liver:																						
Acute hepatitis	...	1	...	...	1	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	
Cirrhosis atrophic	3	2	8	...	6	7	13	...	...	...	...	5	5	3	...	1	1	...	...	5	6	
Malignant disease	1	...	...	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	
Syphilitic disease	1	...	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	
Gall stones	2	2	...	...	2	2	4	...	...	...	1	1	1	1	...	...	..	...	...	2	2	
Jaundice	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	
Peritoneum:																						
Acute Peritonitis	1	3	...	...	3	1	4	1	...	...	1	1	1	...	...	3	...	...	...	...	1	
Chronic "	2	1	...	1	3	1	4	...	2	1	...	1	...	...	...	...	...	2	...	1	1	
Ascites	3	1	...	1	...	5	5	...	...	...	...	2	1	1	1	...	...	...	1	...	4	
DISEASES OF THE LYMPHATIC SYSTEM:																						
Malignant disease of cervical gland	...	1	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex.			Age.								Result.						Remarks.
					Males.	Females.	Total.	Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Death.		Unrelieved.		Relieved.		
																M	F	M	F	M	F	
DISEASES OF THE THYROID GLAND:																						
Exophthalmic goitre	1	...	2	...	...	3	3	...	...	1	...	2	...	...	...	...	1	...	1	...	1	
Malignant disease of thyroid gland	1	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	
DISEASES OF THE SUPRARENAL CAPSULES:																						
Addison's disease	...	3	1	...	3	1	4	...	1	...	1	1	...	1	...	...	1	...	...	3	...	
DISEASES OF THE URINARY SYSTEM:																						
Acute nephritis	1	1	1	...	2	1	3	...	...	2	1	...	...	...	...	...	...	...	...	2	1	
Chronic nephritis:																						
1. Large white kidney	11	2	6	5	18	6	24	...	...	3	8	6	4	2	1	6	1	2	...	10	5	
2. Contracted kidney	...	5	...	3	6	2	8	...	...	...	...	...	5	2	1	2	...	...	...	4	2	
Tubercular kidney	1	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	
Movable kidney	...	...	1	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	
Renal calculus	2	...	...	1	1	2	3	...	...	...	...	2	1	...	...	...	...	...	1	1	1	
Cystic kidney	1	...	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	
Incontinence of urine	1	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	
Cystitis	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	
Hæmaturia	...	...	1	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	
DISEASES OF THE SKIN:																						
Sycosis	...	1	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	
Lupus	3	1	1	1	4	2	6	...	1	...	3	1	...	1	...	...	...	...	...	4	2	
Herpes	1	...	...	2	3	...	3	...	...	2	1	...	...	...	...	...	...	...	...	3	...	
Erythema nodosum	1	2	...	...	...	3	3	1	...	...	1	1	...	...	...	...	...	...	...	...	3	
Urticaria	...	...	...	1	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Pediculi	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	
DISEASES OF WOMEN:																						
Malignant disease of uterus	...	...	1	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
Puerperal septicæmia	...	...	1	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	
Pelvic peritonitis	...	1	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Hæmatocele	1	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	
Abortion	...	...	1	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
VARIOUS:																						
Marasmus	1	2	1	1	3	2	5	5	...	...	...	...	...	...	...	2	1	...	...	1	1	
Starvation	1	...	...	1	1	1	2	...	...	...	1	...	1	...	...	...	...	...	...	1	1	
Otitis media	2	...	...	...	2	...	2	1	...	1	...	...	...	...	...	...	...	...	...	2	...	
Lateral curvature	...	1	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	
Hæmorrhage from rectum	...	2	...	...	2	...	2	...	...	...	...	...	1	1	...	...	...	1	...	1	...	
Fistula in ano	...	1	...	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex.			Age.								Result.						Remarks.
					Males.	Females.	Total.	Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Death.		Unrelieved.		Relieved.		
																M	F	M	F	M	F	
VARIOUS—*continued*—																						
Caries of teeth	...	2	...	...	...	2	2	...	...	2	...	...	...	...	...	...	...	...	...	...	2	
Empyema of antrum	...	1	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
Bedsore	...	1	...	...	...	1	1	...	...	..	...	...	1	...	...	...	1	...	...	...	...	
Epistaxis	...	...	1	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	
Caries of spine	...	...	1	...	...	1	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	
Psoas abscess	...	...	1	...	1	...	1	...	...	...	1	...	...	...	..	...	...	...	...	1	...	
Senile asthenia	...	..	...	1	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	
Axillary abscess	...	...	...	1	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	
Abdominal tumour	...	...	...	1	1	...	1	...	...	...	...	...	...	...	1	...	...	1	...	...	...	
Malingering	1	2	...	...	3	...	3	...	...	...	1	...	2	...	...	...	...	...	...	3	...	
Nil	4	3	...	2	6	3	9	3	1	2	3	...	...	...	...	...	...	...	...	6	3	

Table C.—*List of Deaths in the Medical Wards.*

	Males.		Females.
General Diseases:			
Erysipelas	2	...	1
Enteric fever	3	...	2
Diphtheria	1	...	1
Pertussis	1	...	1
Acute rheumatism	1	...	1
Tuberculosis	7	...	1
Pernicious anæmia	1	...	0
Purpura	1	...	0
Diseases of the Nervous System:			
Cerebral tumour	0	...	1
Meningitis	3	...	2
Hydrocephalus	0	...	2
Chorea	1	...	0
Infantile convulsions	1	...	1
Diseases of the Circulatory System:			
Ulcerative endocarditis	2	...	1
Mitral disease	2	...	2
Aortic "	6	...	1
Dilated heart	1	...	0
Diseases of the Respiratory System:			
Malignant disease of larynx	1	...	0
Œdematous laryngitis	1	...	0
Acute bronchitis	0	...	1
Chronic "	0	...	2
Bronchiectasis	1	...	0
Lobar pneumonia	14	...	0
Lobular "	4	...	5
Phthisis	13	...	9
Emphysema	1	...	0
Gangrene of lung	1	...	0
Malignant disease of lung	1	...	1
Syphilitic " "	1	...	0
Pleurisy with effusion	0	...	1
Empyema	3	...	0
Pneumothorax	1	...	0
Mediastinal tumour	1	...	0
Diseases of the Digestive System:			
Malignant disease of œsophagus	2	...	0
Post-pharyngeal abscess	1	...	0
Gastric ulcer	2	...	2

	Males.		Females.
Diseases of the Digestive System—*continued.*			
Carcinoma of stomach	1	...	1
Enteritis	0	...	1
Ulcerative colitis	1	...	0
Duodenal ulcer	1	...	1
Diarrhœa	1	...	1
Malignant disease of intestine	1	...	0
Acute hepatitis	1	...	0
Cirrhosis of liver	1	...	1
Acute peritonitis	3	...	0
Marasmus	2	...	1
Diseases of the Suprarenal Bodies:			
Addison's disease	0	...	1
Diseases of the Thyroid Gland:			
Exophthalmic goitre	0	...	1
Diseases of the Urinary System:			
Chronic nephritis, large white kidney	6	...	1
" " contracting granular kidney	2	...	0
Various:			
Bedsore	0	...	1
Caries of spine	0	...	1
Total	101	...	49

TABLE F.—*Lobar Pneumonia.*

Eighty-three cases of lobar pneumonia were treated in the Hospital during the year 1891.

This is considerably above the average of the last few years, and most notably in the case of the first six months of the year. For this period the average during the last 6 years has been 30·3; in 1891 the number was 70. It was during the months of April, May, and June that London was suffering from a severe epidemic of influenza, and it is difficult not to associate the two facts, although the cases of pneumonia directly following on influenza were only 2, as far as could be ascertained on careful inquiry.

Ages.

Under 5.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.
4	3	20	31	13	8	3	1

Sex.

Males.	Females.
67	16

Numbers admitted in each Month.

January	22	July	2
February	8	August	0
March	10	September	3
April	14	October	1
May	10	November	4
June	6	December	3

Seasons.

Cases admitted, in each group of three months.

January to March	40	July to September	5
April to June	30	October to December	8

Cases admitted, in two groups: six warmer and six colder months.

April to September	35	October to March	48

There were 17 deaths among the 83 cases—all males—giving a percentage of 20·48.

Death occurred.

On 2nd day	in 1 case	On 10th day	in 1 case
„ 4th „	„ 3 cases	„ 14th „	„ 1 „
„ 5th „	„ 1 case	„ 17th „	„ 1 „
„ 6th „	„ 1 „	„ 20th „	„ 1 „
„ 7th „	„ 1 „	„ 21st „	„ 1 „
„ 8th „	„ 1 „	„ 23rd „	„ 1 „
„ 9th „	„ 2 cases	„ 47th „	„ 1 „

As to cause, the cases may be classed as follows:—

Exposure to wet and cold	19
Infection or poisoning	9
Various (including traumatism)	5
No cause discovered	50

As to the termination of the pneumonia by crisis or lysis. Excluding 16 deaths in which the patients' temperature was still febrile when death took place, and counting the cases when more than one crisis occurred by the number of these crises—

Crisis took place in 52 cases.
Lysis „ „ 23 „

Crisis occurred.

On 1st day	in 1 case	On 7th day	in 9 cases
„ 2nd „	„ 2 cases	„ 8th „	„ 9 „
„ 3rd „	„ 3 „	„ 9th „	„ 3 „
„ 4th „	„ 8 „	„ 10th „	„ 1 case
„ 5th „	„ 3 „	„ 11th „	„ 1 „
„ 6th „	„ 12 „		

The duration of the fever in the cases which terminated by lysis was as follows:—

Days.	No. of cases.	Days.	No. of cases.
6	1	12	2
7	7	13	2
8	4	14	1
9	1	21	1
10	0	22	1
11	3		

The equality and inequality of the pupils during the attack of pneumonia has been observed in 60 of the cases:—

In 23, where only one lung was affected, the pupils were equal throughout
„ 5, where both lungs were affected, they were also equal.
„ 23, the larger pupil was on the same side as the affected lung.
„ 10, on the opposite side.

The duration of the inequality was from one day onwards, but wherever possible they were observed to see if they became equal after the attack was over.

In 33 cases herpes occurred; and the correspondence of the side of the lips on which the herpes occurred and the side on which the larger pupil was observed has been noted as follows:—

(In 10 of the earlier cases the side was not noted, and in 3 of the herpes cases the pupils were not noted—thus reducing the 33 to 20.)

Side of herpes corresponded to larger pupil	in 12 cases
„ „ did not correspond to larger pupil	„ 3 „
Herpes was double, and the pupils equal	„ 1 case
„ unilateral, but pupils equal	„ 4 cases

In 23 cases the correspondence of the side of the herpes with the lung affected was noted:—

The side of the herpes corresponded with the affected lung	in 16 cases
„ „ „ did not correspond with the affected lung	„ 5 „
Herpes was double, and pneumonia double	„ 2 „

Out of 18 cases, the side of the herpes and the side of pneumonia and the larger pupil—

Corresponded	in 10 cases
Did not correspond	„ 7 „
Pneumonia and herpes double, and pupils equal	„ 1 case

Notes to Table F.

If nothing is stated with reference to sanitation, it implies that no information as to *bad* drainage could be obtained.

The "highest temperature" refers to the highest temperature occurring during the patient's stay in Hospital only.

"Day of crisis" is calculated from the date of onset as described by the patient, not merely the number of days fever in Hospital.

Herpes—	left	= left side	of mouth.
	right	= right side	
	double	= both sides	

If any other part of the body is affected, it is so stated.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result	P. M. Book reference.	Remarks.
1 E. C.	36	F.	Jan.	Housework	None	Stitch	Temperate, good health	4th	5th	Right lower lobe	7th	105·4	0	0	0	—	Recovery	—	—
2 H. W.	29	M.	"	Bricklayer's labourer	Exposed to draughts	Rigor, stitch	Alcoholic	6th	On adm.	Right lower lobe	7th	104·6	Yes	0	Yes	—	Recovery	—	Delirium continued for 3 nights after his crisis.
3 F. T.	50	M.	"	Musician	None	Rigor, stitch	Temperate	4th	On adm.	Left lower lobe	7th	104	Yes	0	Yes	—	Recovery	—	—
4 S. L.	52	F.	"	Charwoman	? Chill on a 'bus	Rigor, stitch	Alcoholic	5th	On adm.	Left upper lobe	Lysis, 12 days fever	102·6	Yes, marked	Yes	0	—	Recovery	—	—
5 W. P.	19	M.	"	Sweep	Fell down and hurt his chest while sliding on ice the previous day	Rigor, vomiting, stitch	Temperate; pleurisy on right side when young	5th	On adm.	Left upper lobe	9th	104·2	Yes, slight	Yes	Yes	—	Recovery	—	—
6 F. A.	21	M.	"	Grocer	None	Rigor, vomiting	Temperate; always delicate; chronic bronchitis	6th	On adm.	Left upper lobe	Lysis, 11 days fever	104	Yes	Yes	Yes	Bronchitis	Recovery	—	Physical signs extended after the crisis. Suffering from recent syphilis.

7 J. A.	32	M.	„	Labourer	None; ailing for 6 weeks previous	Rigor	Temperate, though formerly alcoholic, good health	7th	On adm.	Double, lower lobes	7th, temp. rose again to 105°, 2nd crisis on 11th day	106	Yes, in relapse	A trace	0	Physical signs of phthisis at right apex during convalescence, afterwards becoming marked	Relief	—	First attack mild, relapse excessively severe; 24 ozs. brandy during one day.
8 C. B.	29	M.	„	Gas-stoker	None	Stitch, rigor on 3rd day	Slightly alcoholic	3rd	On adm.	Left lower lobe	6th	103	Yes	0	Yes	—	Recovery	—	Right pupil larger.
9 J. O.	20	M.	„	Draper	None	Rigor, stitch	Temperate, good health	4th	On adm.	Left lower lobe	6th	104	0	Yes	Yes	—	Recovery	—	Left pupil much larger.
10 J. R.	21	M.	„	Police recruit	Chill?	Rigor, stitch	Temperate, good health	6th	On adm.	Right lower lobe	—	105·8	Yes	Not exam.	0	Continuous diarrhœa	Death 9th day	Vol. VI., fol. 203	Right pupil larger. Death from exhaustion. Bled to 6 ozs. just before death.
11 W. T.	29	M.	„	Envelope cutter	None	Rigor, vomiting	Alcoholic, beer	7th	On adm.	Right upper lobe	Lysis, 14 days fever	104·4	Yes, excessive	Yes	0	Facial erysipelas	Recovery	—	Pupils not seen owing to swelling of lids.
12 T. A.	21	M.	„	Pottery labourer	Chill whilst sliding on ice; drains all up in his court	Rigor, malaise	Temperate, good health	8th	On adm.	Left lower lobe	8th	99	0	0	Yes	—	Recovery	—	Admitted during crisis.
13 J. T.	19	M.	„	Yard-man at gas factory	None	Rigor, vomiting	Alcoholic, good health	2nd	On adm.	Double, apices of lower lobes	7th	105	Yes	Yes	0	—	Recovery	—	Pupils equal. Severe headache; sponged.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
14 E. T.	19	M.	Jan.	Baker	Fell on ice, concussion on previous day	Rigor, retching	Enteric fever; temperate	1st	On adm.	Apex of left lower lobe	4th	105·2	0	Yes	0	—	Recovery	—	Pupils equal.
15 J. E.	30	M.	„	?	None	Sudden pain in abdomen, vomiting	Influenza badly last year	4th	On adm.	Double, both lower lobes	—	101·8	Excessive	Not exam.	0	Profuse diarrhœa, peritonitis, empyema	Death 5th day	Vol. VI., fol. 209	Much diaphragmatic pleurisy. Passed urine and motions in bed always.
16 G. C.	29	M.	„	Carman	Chill from driving without his coat	Sudden stitch	Temperate, good health	2nd	On adm.	Apex of right lower lobe	—	101·8	Yes	No	Yes	General bronchitis	Death 4th day	Vol. VI., fol. 210	Out of work and badly fed up to one week before admission.
17 J. E.	11	M.	„	School	Got wet through 3 days running	Rigor	—	2nd	On adm.	Left lower lobe	3rd	102·2	0	Not exam.	Left	—	Recovery	—	Left pupil larger.
18 J. C.	28	M.	„	Cabman	Wet through 2 nights previous, and put on damp clothes next day	Rigor, stitch	Beer, 0 iv., fever and ague	3rd	On adm.	Right lower lobe	8th	104·8	0	Yes	Yes	Slight jaundice	Recovery	—	Temperature fell to normal on 6th day, but rose again at once. Left pupil larger. Slow resolution.

19 W. H.	17	M.	„	Printer	Wet through 2 days previous	Stitch, rigor	Bronchitis 5 years ago; pigeon breast	3rd	On adm.	Left lower lobe	6th, occupying 2 days	104·6	Yes, slight	0	Left	—	Recovery	—	Left pupil larger.
20 J. T.	18	M.	„	Paper-worker	None	Sudden cough, rigor 4 days later	Acute rheumatism and morbus cordis	10th	On adm.	Apex of right lower lobe	10th	99·8	0	0	Both	Mitral regurgitation	Recovery	—	Right pupil larger.
21 A. B.	21	F.	„	Barmaid	None	Stitch	Anæmia	4th	On adm.	Left lower lobe	4th	105	0	Yes	Right	—	Recovery	—	Right pupil larger.
22 J. S.	38	M.	„	Gas-stoker	Attacked while in hospital for abdominal symptoms; ? infection from 23	Vomiting, rigor	Influenza; temperate	In hospital	4th	Right upper lobe	—	105·6	Yes	Yes	0	Extensive superficial ulceration of colon; diarrhœa	Death 6th day	Vol. VI., fol.216	Pupils equal.
23 G. M.	45	M.	Feb.	Labourer	None	Rigor	Pleurisy; chronic bronchitis; phthisis	3rd	On adm.	Left upper lobe	1st attack, lysis, 7 days fever; 2nd attack	103·2 104·4	Yes	Yes	0	Phthisis	Death 21st day	Vol. VI., fol.227	1st attack, delirium continued 3 days after fever ceased.
24 J. H.	37	M.	„	Carpenter	None	Sudden stitch, rigor	Beer, 0 vi.	5th	On adm.	Double, upper lobes	9th	103	Yes	0	Left	—	Recovery	—	Delirium continued 2 nights after crisis. Right pupil larger.
25 F. B.	29	M.	„	Barman	In same ward as 22 & 23; ? infection from 23	Rigor, vomiting	Chronic renal; very alcoholic	In hospital	7th	Right upper lobe	Lysis, 9 days fever	105·2	Yes	Yes, large am'nt	0	Chronic renal	Recovery	—	Pupils equal.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
26 R. J. B.	15	M.	Feb.	Printer	None	Rigor, stitch	Pleurisy, left side, 7 years ago	2nd	On adm.	Apex of left lower lobe	4th	104·2	0	0	Right	—	Recovery	—	—
27 L. D.	13	F.	"	—	Father lying dead at home from pneumonia	Rigor, vomiting	Measles; whooping cough	1st	3rd	Left upper lobe	6th	104	0	0	Left	—	Recovery	—	Left pupil larger.
28 K. S.	24	F.	"	Laundress	Left off underclothing day of attack	Rigor, vomiting	Good health, temperate	4th	On adm.	Right upper lobe	4th	99·6	0	0	Yes	—	Recovery	—	Pupils equal.
29 E. H.	16	M.	"	None	Chill on previous night	Vomiting, rigor, hæmoptysis on day of onset	Pleurisy and bronchitis 1 year previous; temperate	1st	On adm.	Right upper lobe	Double crisis, 1st and 2nd day	104·4 105	0	0	Right	—	Recovery	—	Right pupil larger.
30 J. B.	20	M.	"	Drapers' assistant	Chill whilst playing football	Rigor, vomiting	Measles; S. F. æt. 20; temperate	4th	5th	Right upper lobe	8th	104	0	0	0	Severe epistaxis on 7th day 3 times	Recovery	—	Two false crises on 6th and 7th days. Very deaf about crisis. Left pupil larger.

31 E. B.	17	M.	Mar.	Hair-dresser	None	Rigor, vomiting	Good health, temperate	3rd	On adm.	Right lower lobe	6th	104·6	0	0	Right	—	Recovery	—	Right pupil larger.
32 T. C.	12	M.	„	School	None	Rigor, diarrhœa, vomiting	S. F., measles, whooping cough, bronchitis	2nd	On adm.	Both upper lobes	Two crises, 6th and 7th	104·2	0	0	Right	—	Recovery	—	Right pupil larger. Temperature very irregular.
33 T. P.	37	M.	„	Gas-stoker	Exposure to snow and cold	Rigor, stitch	Good health, alcoholic	2nd	On adm.	Whole left lung	—	104	Yes	No	Left	Much capillary bronchitis	Death 8th day	No P.M. allowed	Right pupil larger.
34 K. C.	43	F.	„	Married, washer-woman	Great over-exertion in laundry	Rigor, vomiting, stitch	Good health, temperate	8th	On adm.	Apex of right lower lobe	Lysis, 12 days fever	102·4	0	Slight	0	—	Recovery	—	Wife of No. 37. Very prolonged case with much prostration. Left pupil larger.
35 J. H.	28	M.	„	Stable-man	None	Rigor, stitch, intoxicated at the time	Good health, very alcoholic	3rd	On adm.	Apex of left lower lobe	—	103·2	Excessive	0	0	—	Death 4th day	Vol. VI., fol. 244	Left pupil larger.
36 A. D.	$\frac{6}{12}$	M.	„	—	None	Convulsion, vomiting	Congenital syphilis	?	On adm.	Right upper lobe	—	102	0	?	0	Congenital syphilis	Death 14th day	Vol. VI., fol. 241	—
37 P. C.	44	M.	„	Brick-layer's labourer	Nursing his wife with pneumonia, and becoming very exhausted	Rigor, vomiting	Chronic bronchitis; temperate	6th	On adm.	? Left lower lobe	7th	103·6	0	0	Right	—	Recovery	—	Pupils equal.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
38 C. F.	16	F.	Mar.	H.M. Stationery Office	None	Stitch	Tracheotomy æt. 3; inflammation of lungs 3 or 4 times	4th	On adm.	Apex of right lower lobe	Lysis, 8 days fever	105·8	0	0	0	—	Recovery	—	Left pupil larger.
39 R. K.	27	M.	"	Wine-bottler	None	Rigor, vomiting, stitch	Good health, alcoholic	5th	On adm.	Right lower lobe	Lysis, 7 days fever	104·8	Slight	0	0	Bronchitis	Recovery	—	Pupils equal; hæmorrhage under left conjunctiva.
40 F. C.	20	M.	"	Electrical engineer	None	Rigor, vomiting, stitch	Left pleurisy 3 years previous; temperate	3rd	On adm.	Right lower lobe and apex of left lower lobe	4th	102·6	0	0	Both sides	—	Recovery	—	Pupils equal.
41 A. T.	40	M.	Apr.	Labourer	None	Rigor	Very alcoholic	2nd	On adm.	Whole left lung	—	100·6	0	?	0	Capillary bronchitis	Death 2nd day	Vol. VI., fol.252	—
42 J. B.	61	M.	"	Stonemason	Definite chill	Rigor, stitch	Winter cough 12 years; slightly alcoholic	8th	On adm.	Left lower lobe	Lysis, 13 days fever	103·6	0	0	0	Much general bronchitis, dilated heart, left empyema	Death 47th day	Vol. VI., fol.281	Pupils equal.

43 G. P.	5½	M.	„	—	None	Vomiting, stitch	Chicken pox, whooping cough, measles	6th	On adm.	Apex of right upper lobe	Double crisis, 6th and 8th	105	0	0	0	—	Recovery	—	Pupils equal.
44 D.McC.	37	M.	„	Hawker	Considerable exposure	Rigor	Good health, alcoholic	8th	On adm.	Apex of left upper lobe	Lysis, 11 days fever	104·4	Yes	Yes	0	Passed urine & fæces in bed	Recovery	—	Left pupil larger. So prostrate that he seemed likely to die.
45 D. H.	28	M.	„	Cab-driver	None	Rigor, vomiting	Winter cough many years; temperate	8th	On adm.	Apex of right lower lobe	8th	100	0	0	0	Emphysema	Recovery	—	Admitted during crisis.
46 A. L.	24	M.	„	Grocer	None	Rigor, became unconscious for 3 days	Typhoid æt. 11; otorrhœa 14 years ago; similar attack 2 years ago; temperate	2nd	4th	Double, both bases	Crisis on 3rd day from left pneumonia; lysis, 7 days fever, with right pneumonia	105·4 both attacks	0	Yes	Both sides	Coma for 3 days at commencement; jaundice, with right pneum.; afterwards otorrhœa & night pyrexia; ? phthisis left apex	Recovery	—	Was found unconscious in his room, and when brought to hospital remained so for 2 days. When his temperature fell, on the 3rd day, he recovered consciousness and assumed the ordinary aspect of pneumonia.
47 H. G.	48	M.	„	Horse-keeper	Considerable night exposure	Rigor, stitch	Good health, alcoholic	3rd	On adm.	Apex of right lower lobe	Lysis, 7 days fever	101·6	0	Trace	Right	—	Recovery	—	Pupils equal.
48 J. R.	35	M.	„	Hawker	None	Rigor, stitch	Good health, alcoholic up to 7 weeks previous	3rd	4th	Apex of right lower lobe	8th; 2 false crises previously	105·6	0	0	Right	—	Recovery	—	Left pupil larger, afterwards equal.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
49 J.J.W.	2½	M.	Apr.	—	None	Vomiting, diarrhœa	Whooping cough (still continuing)	2nd	On adm.	Right upper lobe	3rd	102·4	0	0	0	—	Recovery	—	—
50 W. D.	31	M.	„	Packer	Bad smells in house, no water to flush drains	Rigor, vomiting, diarrhœa	Enteric fever; slightly alcoholic	1st	2nd	Apex of left lower lobe	Lysis, 8 days fever	104·6	Excessive	—	Right	Acute mania on 5th day, lasting a week; marked delusions	Recovery	—	Right pupil larger.
51 C. H.	22	F.	„	Ironer	None	Vomiting, rigor	Good health, temperate	1st	2nd	Right lower lobe	Double crisis, 2nd & 4th	104·8	0	0	0	Persistent pleural friction	Recovery	—	—
52 T. H.	31	M.	„	Cloth-folder	None	Rigor, stitch	Dysentery; very alcoholic, beer	8th	On adm.	Left lower lobe	—	104	0	Yes	0	Much general bronchitis	Death 9th day	Vol. VI., fol.265	Pupils equal.
53 J. B.	25	M.	„	Labourer	None	Rigor, stitch	Cough and cold 1 month; teetotaller	5th	8th	Whole left lung	—	105	Yes	Trace	0	Much general bronchitis; empyema found on 15th day	Death 17th day	Vol. VI., fol.277	Left pupil larger.
54 A. B.	12	F.	„	School	Drains up recently, and bad smells in house	Nausea, diarrhœa	Good health	4th	5th	Left lower lobe	7th	104·2	0	Trace	0	—	Recovery	—	Left pupil larger.

55 G. B.	4	M.	May	—	None	Anorexia	Lobular pneumonia twice	3rd	On adm.	Right lower lobe	6th	105·2	0	0	0	—	Recovery	—	—
56 T. F.	11	M.	„	School	Fell downstairs, and at once shivered	Rigor, vomiting	S. F.; measles	6th	On adm.	Right upper lobe	9th	103·2	0	0	0	—	Recovery	—	Right pupil larger.
57 J. R.	50	M.	„	Labourer	None	Rigor, headache	Winter cough; slightly alcoholic	6th	7th	Apex of left lower lobe	Lysis, 13 days fever	102·8	0	Trace	0	Emphysema	Recovery	—	Very tremulous; pupils equal.
58 W. B.	20	M.	„	Fishmonger	None	Pains, rigor	Good health, temperate	3rd	On adm.	Right lower lobe	Lysis, 7 days fever	102·2	Very prolonged	Trace	Right	General bronchitis	Recovery	—	Delirium continued after temperature became normal; very prostrate; right pupil larger.
59 T. E.	10	M.	„	School	None	Headache	Good health	1st	On adm.	Left lower lobe and right apex	Double. 4th & 5th	104·8	Excessive	?	0	—	Recovery	—	Right pupil larger.
60 C. B.	22	M.	„	Policeman	None	Vomiting, rigor	Good health, slightly alcoholic	4th	On adm.	Left lower lobe	5th	104	0	0	0	—	Recovery	—	Pupils equal.
61 T. K.	40	M.	„	Labourer	None	Rigor, stitch	Pleurisy 2 years ago; alcoholic	3rd	On adm.	Entire right lung	—	103	Yes	?	0	Pericarditis	Death 4th day	Vol. VI., fol. 287	Right pupil larger.
62 S. T.	23	M.		Baker	Put on damp trousers 3 days before	Rigor	Good health, temperate	6th	On adm.	Right upper lobe	Lysis, 11 days fever	103·8	0	0	0	—	Recovery	—	Diarrhœa before admission; very depressed; deafness later, gradually improving.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
63 A. S.	23	F.	In hosp. May	House-work	Being treated with tuberculin for phthisis when attack came on	Rigor, vomiting	Syphilis; phthisis	1st	1st	Left upper lobe	—	104·2	Slight	0	0	Empyema; phthisis	Death 23rd day	Vol. VI., fol. 310	Left pupil larger; left off tuberculin 36 hours before rigor.
64 E. H.	8	F.	"	School	None	Rigor, stitch	Bronchitis	4th	On adm.	Left lower lobe	5th	103	0	Trace	0	—	Recovery	—	Right pupil larger.
65 C. K.	17	M.	June	Servant	None	Rigor, stitch	Good health, temperate	4th	5th	Left lower lobe	6th	105·4	Yes	0	Left	—	Recovery	—	Left pupil larger.
66 W. D.	44	M.	"	Warehouseman	Influenza 3 weeks before, not completely recovered; drains bad, only just repaired, whole street ill with influenza	Rigor, pain in back	Good health, temperate	6th	On adm.	Right and left lower lobes	8th	103	0	Trace	0	Persistent pleural friction	Recovery	—	Right pupil larger.

67 W. D.	29	M.	„	Organ-grinder	Wet through day before onset	Rigor, pain in back	Good health, temperate	2nd	On adm.	Left lower lobe	—	106	Yes	Yes	0	—	Death 10th day	Vol. VI., fol.316	Left pupil larger.
68 A. F.	35	M.	„	Distiller	None; ailing 14 days	Rigors	Good health, 2 pints of raw spirit daily	6th	On adm.	Right upper lobe	—	105	Maniacal	?	Left	—	Death 7th day	Vol. VI., fol.312	Pupils equal.
69 J. H.	18	M.	„	Footman	Influenza onset 7 days previous	Vomiting, rigor	Good health, temperate	2nd	On adm.	Both lower lobes	Lysis, 7 days fever	103	0	0	0	—	Recovery	—	Pupils equal
70 J. J.	4	M.	„	School	None	Anorexia	Cough always; now whooping cough	1st	On adm.	Left upper lobe	3rd	101·2	0	0	0	Whooping cough	Recovery	—	Pupils equal
71 W. K.	17	M.	In hosp. July	Printer	During relapse of acute rheumatism, for which he was already in hospital	Gradual	Smallpox; temperate	1st	2nd	Left lower lobe	Lysis, 7 days fever	103	0	0	Left	--	Recovery	—	Left pupil larger.
72 G. G.	21	M.	„	Shop-assistant	None	Rigor, stitch	Good health, temperate	2nd	3rd	Double, both lower lobes	—	103·2	Yes	0	0	Pericarditis; extensive pleurisy	Death 20th day	Vol. VI., fol.353	Pupils equal

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
73 A. C.	31	F	Sept.	Housework	Exposure to cold night air 6 days previous	Rigor, vomiting, stitch	Inflam. of lungs 12 months previous	4th	On adm.	Left upper lobe	6th	104·8	0	Trace	0	—	Recovery	—	Very slow resolution, some dulness and crepitations remaining at left base 6 weeks after. Temperature rose again 1 week after crisis, and remained raised, gradually falling for 6 weeks. Probably resulting in phthisis. Pupils equal.
74 M. B.	27	F.	„	Housework	Confined 14 days previous; very bad smells in house	Stitch	Good health, temperate	2nd	4th	Left lower lobe	Lysis, 21 days fever	104	Yes	0	0	Pleurisy remaining for 5 weeks	Recovery	—	Pupils equal; very slow convalescence.
75 A. S.	22	M.	„	Iron-turner	None	Rigor, stitch	Good health, temperate	4th	On adm.	Whole right lung	6th	102·2	0	0	0	—	Recovery	—	Pupils equal.
76 E. W.	37	F.	Oct.	Cook	None	Rigor	Chronic bronchitis; enteric æt. 8	3rd	On adm.	Left upper lobe	Lysis, 6 days fever	102·4	0	Trace	0	Slight p-ricarditis	Recovery	—	Pupils equal.
77 E. L.	6	M.	Nov.	School	None	Vomiting	Good health	5th	On adm.	Right lower lobe	6th	103·6	0	0	Right and left	—	Recovery	—	—

78 A. N.	16	F.	„	None	None	Gradual	Good health, temperate	3rd	On adm.	Left lower lobe	8th	103·8	0	0	0	Pericarditis	Recovery	—	Pupils equal.
79 D. C.	40	M.	„	Labourer	None	Rigor	Bronchitis 3 years previous	? 20th	On adm.	Right lower lobe	Lysis, 22 days fever	103·4	0	0	0	—	Recovery	—	Pupils equal.
80 E. S.	20	M.	„	Barman	During attack of acute rheum.	Rigor	Good health, alcoholic slightly	1st	On adm.	Left lower lobe	Lysis, 8 days fever	104	0	0	Left	Pericarditis	Recovery	—	Pupils equal.
81 T. S.	26	M.	Dec.	Tailor	Exposure to cold and wet	Rigor, vomiting	Good health, alcoholic, beer	6th	On adm.	Left lower lobe	12th	104·6	Yes	0	0	—	Recovery	—	Pupils equal.
82 J. T.	29	M.	„	Coachman	None	Rigor	Influenza in July; temperate	2nd	On adm.	Double, both lower lobes	Lysis, 8 days fever	103	0	0	0	—	Recovery	—	Pupils equal.
83 F. L.	13	F.	„	School	None	Vomiting	Measles; pleurisy 18 months previous	2nd	On adm.	Left lower lobe	Double crisis, 4th & 7th	105·6	0	0	0	—	Recovery	—	Pupils equal.

MEDICAL REGISTRAR'S REPORT FOR THE YEAR 1892.

By Dr. WILLS.

Number of patients in Hospital on Jan. 1st, 1892		85
" " " Dec. 31st, 1892		83
Admitted to Medical Wards during the year 1892		1,359
Of these—Males	745	
Females	614	
Average number of patients in Hospital		83·16
Average stay in Hospital of each patient		22·38 days
Recovered or relieved		1,112
Males	598	
Females	514	
Unrelieved, including those sent to Surgical or Obstetrical Wards		64
Males	38	
Females	26	
Died		183
Males	109	
Females	74	

The mortality during the year was 13·46 per cent.

TABLE A.

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex.			Age.								Result.						Remarks.
					Males.	Females.	Total.	Under 5 yrs	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Death.		Unrelieved.		Relieved.		
																M	F	M	F	M	F	
GENERAL DISEASES:																						
Group A:																						
Scarlatina	...	3	4	4	6	5	11	3	4	1	2	1	...	...	...	...	...	3	4	3	1	
Morbilli	7	3	...	1	10	1	11	6	2	1	2	...	...	...	...	...	...	...	...	10	1	
Enteric fever	4	6	7	1	9	9	18	2	4	10	2	...	...	...	...	...	1	...	...	9	8	
Diphtheria	3	9	19	4	22	13	35	25	9	1	...	...	...	...	...	11	7	...	...	11	6	
Febricula	3	6	5	1	13	2	15	2	3	6	3	1	...	...	...	...	...	...	...	13	2	
Varicella	...	2	...	...	1	1	2	1	...	...	1	...	...	...	...	...	...	...	...	1	1	
Influenza	37	4	1	1	21	22	43	...	1	12	20	6	1	2	1	...	...	...	...	21	22	
Erysipelas	2	3	5	4	7	7	14	...	1	3	4	1	1	3	1	1	...	...	...	6	7	
Intermittent fever	3	1	1	1	5	1	6	1	1	...	1	2	1	...	...	...	...	...	...	5	1	
Syphilis:																						
1. Congenital	...	1	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	
2. Acquired	...	5	4	1	5	5	10	...	...	...	2	3	4	1	...	1	1	...	...	4	4	
Typhus	1	...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	
Pyæmia	1	...	...	3	1	3	4	1	...	...	...	1	...	...	2	1	3	...	...	...	...	
Gonorrhœa	...	...	1	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	
Gonorrhæal Arthritis	2	...	...	...	2	...	2	...	...	2	...	...	...	...	...	...	...	...	...	2	...	
Group B:																						
Poisons:																						
Strychnine	...	1	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	
Opium	1	...	1	...	...	1	1	...	...	1	1	...	...	...	...	...	1	...	...	...	1	
Lead	1	2	...	2	5	...	5	...	...	1	1	2	1	...	...	...	...	...	...	5	...	
Alcohol	...	1	1	...	...	1	1	...	...	...	...	1	...	1	...	...	...	...	...	...	2	
Group C:																						
Developmental Diseases:																						
Debility	1	4	...	2	3	4	7	...	...	3	1	3	...	...	...	...	...	...	...	3	4	
Marasmus	3	...	2	1	3	3	6	6	...	...	...	...	...	...	...	2	...	...	...	1	3	
Transposition of viscera	1	...	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	1	...	...	...	
Group D:																						
Not classified:																						
Acute Rheumatism	20	25	27	23	54	41	95	3	11	29	31	15	2	3	1	...	1	...	...	54	40	
Subacute ditto	3	7	2	1	6	7	13	...	1	2	2	4	3	...	1	...	...	...	...	6	7	
Chronic ditto	3	1	...	1	3	2	5	...	...	...	1	3	...	1	...	...	...	...	1	3	1	
Gout	1	4	2	1	8	...	8	...	...	...	...	4	3	1	...	...	...	...	...	8	...	
Osteo-arthritis	...	...	1	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	
Tuberculosis	2	7	7	3	13	6	19	9	5	5	...	...	...	...	...	8	6	1	...	4	...	
Rickets	1	...	2	1	2	2	4	4	...	...	...	...	...	...	...	1	...	...	...	1	2	
Malignant disease of femur	...	...	1	...	1	...	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	
Malignant disease of pelvis	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Sex. Females.	Sex. Total.	Age. Under 5 yrs.	Age. 5—10.	Age. 10—20.	Age. 20—30.	Age. 30—40	Age. 40—50.	Age. 50—60.	Age. Over 60.	Result. Death. M	Result. Death. F	Result. Unrelieved. M	Result. Unrelieved. F	Result. Relieved. M	Result. Relieved. F	Remarks.
GENERAL DISEASES—*continued*—																						
Anæmia	14	12	9	15	...	50	50	...	...	22	23	4	1	...	...	...	...	...	...	...	50	
Leucocythæmia	2	2	1	...	2	3	5	...	...	...	3	1	1	...	...	1	...	...	1	1	2	
Purpura	1	1	...	...	2	...	2	...	...	...	1	1	...	...	...	...	...	...	...	2	...	
Diabetes	1	...	3	3	4	3	7	...	...	1	1	...	2	2	1	...	...	...	...	4	3	
DISEASES OF THE NERVOUS SYSTEM:																						
Brain:																						
Hæmorrhage	1	1	2	1	2	3	5	...	...	...	...	1	1	2	1	2	2	...	...	...	1	
Hemiplegia	1	5	2	...	4	4	8	...	...	...	...	1	...	2	5	...	...	...	1	4	3	
Tumour	2	1	5	1	8	1	9	...	1	5	1	1	1	...	...	2	...	1	...	5	1	
Hydrocephalus	...	1	...	1	2	...	2	2	...	...	...	...	...	...	...	1	...	...	...	1	...	
Abscess	...	...	1	...	...	1	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	
Meningitis	3	2	2	1	2	6	8	5	1	1	1	...	...	...	...	...	4	2	1	...	1	
Concussion	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	
Softening	...	1	...	...	1	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	
Cord:																						
Anterior polio-myelitis	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	
Spastic paralysis	...	3	1	3	4	3	7	...	1	1	...	4	...	1	...	...	...	2	...	2	3	
Tabes dorsalis	1	...	1	...	2	...	2	...	...	...	...	1	1	...	...	...	...	...	...	2	...	
Progressive muscular atrophy	...	3	...	1	2	2	4	...	...	1	...	...	2	...	1	...	...	2	2	...	...	
Paraplegia from angular curvature	...	1	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
Various:																						
Sciatica	2	9	1	2	11	3	14	...	...	...	1	2	11	...	...	...	...	...	...	11	3	
Alcoholic peripheral neuritis	...	2	...	...	...	2	2	...	...	...	1	1	...	...	...	...	...	...	...	...	2	
Diphtheritic paralysis	...	1	...	1	1	1	2	1	...	1	...	...	...	...	...	...	...	...	...	1	1	
Menière's disease	...	...	2	...	2	...	2	...	...	...	...	2	...	...	...	...	...	...	...	2	...	
Epilepsy	3	3	5	2	6	7	13	...	...	3	1	5	2	2	...	...	...	...	...	6	7	
Hystero-epilepsy	...	...	...	1	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	
Infantile convulsions	3	3	...	1	5	2	7	7	...	...	...	...	...	...	...	3	...	...	...	2	2	
Chorea	2	9	8	4	3	20	23	...	5	18	...	...	...	...	...	...	...	...	...	3	20	
Hysteria	3	6	3	6	2	16	18	...	...	9	4	2	2	1	...	...	...	...	...	2	16	
Facial paralysis	...	1	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	
Spasmodic Tic	...	1	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	
Neuralgia	...	1	1	...	1	1	2	...	...	...	1	1	...	...	...	...	...	...	...	1	1	
Neuritis	1	1	3	1	5	1	6	...	...	...	1	...	3	2	...	...	...	...	...	5	1	
Tetany	...	2	...	...	2	...	2	2	...	...	...	...	...	...	...	...	...	...	...	2	...	
Mental:																						
General paralysis of the insane	...	2	...	...	2	...	2	...	...	...	...	1	...	1	...	...	...	1	...	1	...	

Table A.

Disease.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Sex. Females.	Sex. Total.	Age. Under 5 yrs	Age. 5—10.	Age. 10—20.	Age. 20—30.	Age. 30—40.	Age. 40—50.	Age. 50—60.	Age. Over 60.	Result. Death. M	Result. Death. F	Result. Unrelieved. M	Result. Unrelieved. F	Result. Relieved. M	Result. Relieved. F	Remarks.
General Diseases:																						
Group A:																						
Scarlatina	...	3	4	4	6	5	11	3	4	1	2	1	...	...	...	...	...	3	4	3	1	
Morbilli	7	3	...	1	10	1	11	6	2	1	2	...	...	...	...	...	...	...	...	10	1	
Enteric fever	4	6	7	1	9	9	18	2	4	10	2	...	...	...	...	...	1	...	...	9	8	
Diphtheria	3	9	19	4	22	13	35	25	9	1	...	...	...	...	...	11	7	...	...	11	6	
Febricula	3	6	5	1	13	2	15	2	3	6	3	1	...	...	...	...	...	...	...	13	2	
Varicella	...	2	...	...	1	1	2	1	...	...	1	...	...	...	...	...	...	...	...	1	1	
Influenza	37	4	1	1	21	22	43	...	1	12	20	6	1	2	1	...	...	...	...	21	22	
Erysipelas	2	3	5	4	7	7	14	...	1	3	4	1	1	3	1	1	...	...	...	6	7	
Intermittent fever	3	1	1	1	5	1	6	1	1	...	1	2	1	...	...	...	...	...	...	5	1	
Syphilis:																						
1. Congenital	...	1	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	
2. Acquired	...	5	4	1	5	5	10	...	...	...	2	3	4	1	...	1	1	...	...	4	4	
Typhus	1	...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	
Pyæmia	1	...	...	3	1	3	4	1	...	...	...	1	...	...	2	1	3	...	...	...	...	
Gonorrhœa	...	...	1	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	
Gonorrhæal Arthritis	2	...	...	...	2	...	2	...	...	2	...	...	...	...	...	...	...	...	...	2	...	
Group B:																						
Poisons:																						
Strychnine	...	1	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	
Opium	1	...	1	...	...	1	1	...	...	1	1	...	...	...	...	...	1	...	...	...	1	
Lead	1	2	...	2	5	...	5	...	...	1	1	2	1	...	...	...	...	...	...	5	...	
Alcohol	...	1	1	...	...	1	1	...	...	...	...	1	...	1	...	...	...	...	...	...	2	
Group C:																						
Developmental Diseases:																						
Debility	1	4	...	2	3	4	7	...	...	3	1	3	...	...	...	...	...	...	...	3	4	
Marasmus	3	...	2	1	3	3	6	6	...	...	...	...	...	...	...	2	...	...	...	1	3	
Transposition of viscera	1	...	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	1	...	...	...	
Group D:																						
Not classified:																						
Acute Rheumatism	20	25	27	23	54	41	95	3	11	29	31	15	2	3	1	...	1	...	...	54	40	
Subacute ditto	3	7	2	1	6	7	13	...	1	2	2	4	3	...	1	...	...	...	...	6	7	
Chronic ditto	3	1	...	1	3	2	5	...	...	...	1	3	...	1	...	...	...	...	1	3	1	
Gout	1	4	2	1	8	...	8	...	...	...	...	4	3	1	...	...	...	...	...	8	...	
Osteo-arthritis	...	...	1	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	
Tuberculosis	2	7	7	3	13	6	19	9	5	5	...	...	...	...	...	8	6	1	...	4	...	
Rickets	1	...	2	1	2	2	4	4	...	...	...	...	...	...	...	1	...	...	...	1	2	
Malignant disease of femur	...	...	1	...	1	...	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	
Malignant disease of pelvis	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Sex. Females.	Sex. Total.	Age. Under 5 yrs.	Age. 5—10.	Age. 10—20.	Age. 20—30.	Age. 30—40	Age. 40—50.	Age. 50—60.	Age. Over 60.	Result. Death. M	Result. Death. F	Result. Unrelieved. M	Result. Unrelieved. F	Result. Relieved. M	Result. Relieved. F	Remarks.
GENERAL DISEASES— *continued—*																						
Anæmia	14	12	9	15	...	50	50	...	...	22	23	4	1	...	...	...	...	...	...	...	50	
Leucocythæmia	2	2	1	...	2	3	5	...	...	...	3	1	1	...	...	1	...	...	1	1	2	
Purpura	1	1	...	...	2	...	2	...	...	...	1	1	...	...	...	...	...	...	...	2	...	
Diabetes	1	...	3	3	4	3	7	...	...	1	1	...	2	2	1	...	...	...	...	4	3	
DISEASES OF THE NERVOUS SYSTEM:																						
Brain:																						
Hæmorrhage	1	1	2	1	2	3	5	...	...	...	...	1	1	2	1	2	2	...	...	...	1	
Hemiplegia	1	5	2	...	4	4	8	...	...	...	...	1	...	2	5	...	...	...	1	4	3	
Tumour	2	1	5	1	8	1	9	...	1	5	1	1	1	...	...	2	...	1	...	5	1	
Hydrocephalus	...	1	...	1	2	...	2	2	...	...	...	...	...	...	...	1	...	...	...	1	...	
Abscess	...	...	1	...	...	1	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	
Meningitis	3	2	2	1	2	6	8	5	1	1	1	...	...	...	...	...	4	2	1	...	1	
Concussion	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	
Softening	...	1	...	...	1	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	
Cord:																						
Anterior polio-myelitis	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	
Spastic paralysis	...	3	1	3	4	3	7	...	1	1	...	4	...	1	...	...	...	2	...	2	3	
Tabes dorsalis	1	...	1	...	2	...	2	...	...	...	...	1	1	...	...	...	...	...	...	2	...	
Progressive muscular atrophy	...	3	...	1	2	2	4	...	...	1	...	...	2	...	1	...	...	2	2	...	...	
Paraplegia from angular curvature	...	1	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
Various:																						
Sciatica	2	9	1	2	11	3	14	...	...	...	1	2	11	...	...	...	...	...	...	11	3	
Alcoholic peripheral neuritis	...	2	...	...	...	2	2	...	...	...	1	1	...	...	...	...	...	...	...	...	2	
Diphtheritic paralysis	...	1	...	1	1	1	2	1	...	1	...	...	...	...	...	...	...	...	...	1	1	
Menière's disease	...	...	2	...	2	...	2	...	...	...	...	2	...	...	...	...	...	...	...	2	...	
Epilepsy	3	3	5	2	6	7	13	...	...	3	1	5	2	2	...	...	...	...	...	6	7	
Hystero-epilepsy	...	...	...	1	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	
Infantile convulsions	3	3	...	1	5	2	7	7	...	...	...	...	...	...	...	3	...	...	...	2	2	
Chorea	2	9	8	4	3	20	23	...	5	18	...	...	...	...	...	...	...	...	...	3	20	
Hysteria	3	6	3	6	2	16	18	...	...	9	4	2	2	1	...	...	...	...	...	2	16	
Facial paralysis	...	1	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	
Spasmodic Tic	...	1	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	
Neuralgia	...	1	1	...	1	1	2	...	...	...	1	1	...	...	...	...	...	...	...	1	1	
Neuritis	1	1	3	1	5	1	6	...	...	...	1	...	3	2	...	...	...	...	...	5	1	
Tetany	...	2	...	...	2	...	2	2	...	...	...	...	...	...	...	...	...	...	...	2	...	
Mental:																						
General paralysis of the insane	...	2	...	...	2	...	2	...	...	...	...	1	...	1	...	...	...	1	...	1	...	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Sex. Females.	Sex. Total.	Age. Under 5 yrs.	Age. 5—10.	Age. 10—20.	Age. 20—30.	Age. 30—40.	Age. 40—50.	Age. 50—60.	Age. Over 60.	Result. Death. M	Result. Death. F	Result. Unrelieved. M	Result. Unrelieved. F	Result. Relieved. M	Result. Relieved. F	Remarks.
DISEASES OF THE NERVOUS SYSTEM—*continued*—																						
Mania	1	...	...	1	1	1	2	...	...	...	...	...	1	...	1	...	...	...	1	1	...	
Melancholia	...	1	1	...	1	1	2	...	...	...	1	...	...	1	...	...	...	1	...	...	1	
Hypochondriasis	...	2	1	...	2	1	3	...	...	...	1	1	1	...	...	...	...	...	...	2	1	
Idiocy	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	1	...	...	...	
Delirium tremens	1	3	1	...	4	1	5	...	...	...	1	3	...	1	...	...	...	2	...	2	1	
DISEASES OF THE EAR:																						
Otitis media	1	...	1	...	...	2	2	1	...	...	1	...	...	...	...	...	1	...	...	...	1	
DISEASES OF THE CIRCULATORY SYSTEM:																						
Dilatation of the heart.	1	1	3	2	2	5	7	...	...	...	...	...	3	3	1	1	1	1	...	...	4	
Endocarditis (not arising in hospital):																						
Mitral:																						
1. With presystolic murmur	1	1	...	...	1	1	2	...	...	...	2	...	...	...	...	1	...	...	...	...	1	
2. With systolic murmur	10	12	12	2	19	17	36	...	3	10	6	10	4	1	2	...	...	...	...	19	17	
3. With double murmur	3	11	4	5	8	15	23	...	1	7	6	1	7	...	1	...	2	...	1	8	12	
Aortic:																						
1. With systolic murmur	1	...	...	3	1	3	4	...	...	...	...	...	1	...	3	...	1	1	...	...	2	
2. With diastolic murmur	1	2	...	1	2	2	4	...	...	1	2	...	...	1	...	...	...	...	...	2	2	
3. With double murmur	5	12	7	5	22	7	29	...	1	4	6	9	6	1	2	3	2	5	...	14	5	
Ulcerative endocarditis	...	1	...	...	...	1	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	
Malignant disease of heart	1	...	...	...	1	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	
Pericarditis	1	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	
Embolism of pulmonary artery	...	...	1	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	
Embolism of brachial artery	1	...	...	...	...	1	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	
Aneurysm:																						
1. Thoracic	1	3	8	1	12	1	13	...	...	...	2	4	4	1	2	5	...	...	...	7	1	
2. Abdominal	1	...	1	...	2	...	2	...	...	...	...	...	1	1	...	...	...	...	...	2	...	
Phlegmasia dolens	...	1	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Sex. Females.	Sex. Total.	Age. Under 5 yrs.	Age. 5—10.	Age. 10—20.	Age. 20—30.	Age. 30—40.	Age. 40—50.	Age. 50—60.	Age. Over 60.	Result. Death. M	Result. Death. F	Result. Unrelieved. M	Result. Unrelieved. F	Result. Relieved. M	Result. Relieved. F	Remarks.
DISEASES OF THE RESPIRATORY SYSTEM:																						
Laryngitis:																						
1. Acute	1	2	1	3	3	4	7	2	...	...	2	2	...	...	1	1	...	...	...	2	4	
2. Chronic	...	1	...	1	2	...	2	...	...	...	...	2	...	...	...	...	...	...	...	2	...	
Stenosis of larynx	1	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
Bronchitis:																						
1. Acute	6	5	7	7	13	12	25	16	3	3	...	1	1	1	...	1	...	...	...	12	12	
2. Chronic	19	6	2	15	24	18	42	...	3	...	4	6	11	10	8	3	2	...	...	21	16	
Bronchiectasis	1	1	...	...	2	...	2	...	...	...	2	...	...	...	...	...	...	...	...	2	...	
Pneumonia:																						
1. Lobar	19	13	14	9	42	13	55	14	4	11	9	9	5	3	...	11	2	...	...	31	11	
2. Lobular	14	8	10	6	20	18	38	28	3	1	1	2	2	1	...	16	5	...	...	4	13	
Gangrene of lung	...	...	1	...	...	1	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	
Phthisis	18	6	19	10	44	19	63	...	...	4	18	24	11	6	...	9	7	...	...	35	12	
Malignant disease of lung	2	...	...	1	2	1	3	...	...	...	...	1	1	1	...	2	1	...	...	...	...	
Emphysema	4	6	4	1	15	...	15	...	...	...	...	...	1	7	7	...	...	...	...	15	...	
Pleurisy:																						
1. With effusion	3	9	4	3	13	6	19	3	3	2	6	1	4	...	...	...	...	...	...	13	6	
2. Without effusion	1	2	3	1	6	1	7	...	...	3	2	1	1	...	...	...	...	...	...	6	1	
Empyema	3	4	5	2	10	4	14	4	2	1	3	2	1	1	...	2	1	...	...	8	3	
Asthma	...	...	2	1	2	1	3	...	...	...	...	...	3	...	...	...	...	...	...	2	1	
DISEASES OF THE DIGESTIVE SYSTEM:																						
Mouth:																						
Stomatitis	2	1	...	...	1	2	3	3	...	...	...	...	...	...	...	...	...	...	...	1	2	
Pharynx and Œsophagus:																						
Tonsillitis	13	28	15	13	36	33	69	3	7	24	21	11	2	1	...	...	...	...	...	36	33	
Retropharyngeal abscess	...	1	...	...	...	1	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	
Pharyngo-mycosis	...	...	1	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	
Œsophageal stricture	1	3	...	...	3	1	4	...	...	...	1	...	1	1	1	...	...	1	...	2	1	
Stomach:																						
Dyspepsia	5	6	...	...	2	9	11	...	...	2	1	3	4	...	1	...	...	...	...	2	9	
Acute gastritis	1	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Ulcer	3	11	5	3	5	17	22	...	...	5	8	6	2	1	...	...	...	...	...	5	17	
Carcinoma	2	3	2	3	8	2	10	...	...	...	...	...	7	3	...	1	1	4	1	3	...	
Vomiting	...	...	1	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Intestines:																						
Diarrhœa	4	13	19	7	23	20	43	26	1	4	2	5	4	1	...	4	6	2	1	17	13	
Constipation	1	2	4	...	2	5	7	...	...	2	2	1	1	...	1	...	...	...	...	2	5	
Colic	2	2	...	1	3	2	5	...	...	...	3	1	1	...	...	...	...	...	...	3	2	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex.			Age.								Result.						Remarks.
					Males.	Females.	Total.	Under 5 yrs	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Death.		Unrelieved.		Relieved.		
																M	F	M	F	M	F	
DISEASES OF THE DIGESTIVE SYSTEM— *continued —*																						
Enteritis	...	2	...	1	2	1	3	1	...	...	...	1	...	1	...	...	...	...	...	2	1	
Typhlitis	1	7	4	2	9	5	14	...	...	9	2	2	...	...	1	1	...	...	...	8	5	
Perforation of Vermiform Appendix	...	...	...	1	1	...	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	
Intussusception	...	2	1	...	...	3	3	...	...	...	...	2	...	...	1	...	2	...	...	...	1	
Malignant disease	2	2	2	1	2	5	7	...	...	...	...	1	3	1	2	...	2	1	1	1	2	
Dysentery	1	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	
Thread-worms	...	...	2	...	1	1	2	...	2	...	...	...	...	...	...	...	...	...	...	1	1	
Liver:																						
Cirrhosis:																						
1. Atrophic	2	6	6	4	8	10	18	...	...	...	1	11	2	2	2	2	...	...	1	6	9	
2. Hypertrophic	1	1	...	...	1	1	2	...	...	...	...	1	...	1	...	...	...	...	...	1	1	
Malignant disease	2	4	3	...	4	5	9	...	...	...	...	1	1	4	3	4	1	...	3	...	1	
Jaundice:																						
1. Simple	1	2	3	1	3	4	7	1	2	...	...	1	2	1	...	...	...	...	...	3	4	
2. Malignant	...	2	...	...	1	1	2	1	...	...	1	...	...	...	...	1	1	...	...	...	...	
Gall stones	...	...	...	3	2	1	3	...	...	...	1	...	2	...	...	...	...	...	...	2	1	
Peritoneum:																						
Peritonitis:																						
1. Acute	...	...	...	1	1	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...	
2. Chronic	...	1	1	...	2	...	2	...	1	1	...	...	...	...	...	...	...	...	...	2	...	
Abdominal tumour	...	2	...	...	...	2	2	...	1	...	...	...	1	...	...	...	...	...	...	...	2	
Ascites	2	1	2	1	2	4	6	...	...	...	...	1	3	2	...	...	...	1	1	1	3	
DISEASES OF THE THYROID BODY:																						
Exophthalmic goitre	...	1	1	...	1	1	2	...	...	1	1	...	...	...	...	...	...	...	...	1	1	
DISEASES OF THE SUPRARENAL CAPSULES:																						
Addison's disease	...	1	1	...	2	...	2	...	...	...	...	2	...	...	...	1	...	...	...	1	...	
DISEASES OF THE URINARY SYSTEM:																						
Acute nephritis	...	5	1	3	8	1	9	1	...	2	4	2	...	...	...	...	...	...	...	8	1	
Chronic nephritis:																						
1. Large white kidney	3	6	9	3	11	10	21	...	...	...	2	13	3	3	...	1	...	...	1	10	9	
2. Contracted kidney	3	3	1	2	6	3	9	...	...	...	...	...	3	3	3	...	1	...	1	6	1	
3. Lardaceous kidney	...	...	...	1	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex.			Age.							Result.						Remarks.
					Males.	Females.	Total.	Under 5 yrs.	5—10.	10—20.	20—30	30—40.	40—50.	50—60.	Over 60.	Death.		Unrelieved.		Relieved.		
																M	F	M	F	M	F	
DISEASES OF THE URINARY SYSTEM—*continued*—																						
Movable kidney	...	1	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	
Malignant disease of kidney	...	...	...	1	...	1	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	
Renal calculus	1	2	2	1	2	4	6	...	...	...	...	2	3	1	...	...	...	...	1	2	3	
Pyelitis	1	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Albuminuria	...	2	...	...	1	1	2	...	...	...	...	...	1	...	1	...	...	...	...	1	1	
Paroxysmal hæmoglobinuria	2	2	...	1	5	...	5	...	...	...	...	4	...	1	...	...	...	...	...	5	...	
Cystitis	...	1	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
Urethral stricture	...	...	...	1	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	
DISEASES OF THE SKIN:																						
Erythema	1	...	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
Eczema	2	...	...	...	1	1	2	1	...	1	...	...	...	...	...	...	...	...	...	1	1	
Lupus	1	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	
Vaccinia	...	1	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	
Pediculi capitis	1	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
DISEASES OF WOMEN:																						
Pelvic peritonitis	1	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Abortion	...	1	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Dysmenorrhœa	...	...	2	1	...	3	3	...	...	1	2	...	...	...	...	...	...	...	...	...	3	
Ovarian tumour	...	...	1	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	
VARIOUS:																						
Starvation	2	...	1	2	4	1	5	1	...	1	...	2	1	...	...	...	...	...	...	4	1	
Abscesses (various)	...	2	2	...	3	1	4	...	1	1	...	1	...	1	...	...	...	1	...	2	1	
Morbus coxæ	...	...	1	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	
Angular curvature	...	...	1	1	2	...	2	...	...	...	...	...	1	1	...	...	...	...	...	2	...	
Fracture of skull	...	...	...	1	1	...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...	
Nil	4	6	2	3	8	7	15	3	3	6	1	1	...	...	1	...	...	...	...	8	7	

TABLE E.—*List of Deaths in the Medical Wards.*

	Males.	Females.
GENERAL DISEASES:		
Diphtheria	11	7
Enteric fever	0	1
Erysipelas	1	0
Pyæmia	1	3
Syphilis	1	1
Opium poisoning	0	1
Marasmus	2	0
Acute rheumatism	0	1
Tuberculosis	8	6
Leucocythæmia	1	0
Rickets	1	0
Sarcoma of pelvis	0	1
DISEASES OF THE NERVOUS SYSTEM:		
Cerebral hæmorrhage	2	2
„ abscess	0	1
„ tumour	2	0
„ softening	1	0
Meningitis	0	4
Hydrocephalus	1	0
Infantile convulsions	3	0
DISEASES OF THE EAR:		
Otitis	0	1
DISEASES OF THE CIRCULATORY SYSTEM:		
Ulcerative endocarditis	0	1
Mitral disease	1	2
Aortic disease	3	3
Dilated heart	1	1
Pericarditis	0	1
Thoracic aneurysm	5	0
Malignant disease of heart	1	0
Embolism of brachial artery	0	1
DISEASES OF THE RESPIRATORY SYSTEM:		
Acute laryngitis	1	0
Acute bronchitis	1	0
Chronic „	3	2
Lobar pneumonia	11	2
Lobular „	15	5
Phthisis	9	7
Malignant disease of lung	2	1
Gangrene of lung	0	1
Empyema	2	1

	Males.		Females.
Diseases of the Digestive System:			
Retropharyngeal abscess	0	...	1
Malignant disease of stomach	1	...	1
Typhlitis	1	...	0
Malignant disease of intestine	0	...	2
Perforation of vermiform appendix	1	...	0
Intussusception	0	...	2
Diarrhœa	4	...	6
Cirrhosis of liver	2	...	0
Malignant disease of liver	4	...	1
Malignant jaundice	1	...	1
Acute peritonitis	1	...	0
Diseases of the Suprarenal Bodies:			
Addison's disease	1	...	0
Diseases of the Urinary System:			
Chronic nephritis:			
1. Large white kidney	1	...	0
2. Contracting granular kidney	0	...	1
Malignant disease of kidney	0	...	2
Various:			
Fracture of skull	1	...	0
Total	109	...	74

TABLE F.—*Lobar Pneumonia.*

Fifty-five cases of lobar pneumonia were treated in the Hospital during the year 1892, which, added to the number during 1891, makes a total of 138 cases.

The number of admissions has this year retnrned to the average of the last few years, and there has been no excess even during the first six months when an influenza epidemic again visited London.

The number of cases directly following on influenza were 2.

Ages.

	Under 5.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.
1891	4	3	20	31	13	8	3	1
1892	14	4	11	9	9	5	3	0
Total	18	7	31	40	22	13	6	1

Sex.

	Males.	Females.
1891	67	16
1892	42	13
Total	109	29

Numbers admitted in each Month.

	1891.	1892.	Total.		1891.	1892.	Total.
January	22	5	27	July	2	5	7
February	8	5	13	August	0	6	6
March	10	9	19	September	3	3	6
April	14	4	18	October	1	2	3
May	10	5	15	November	4	4	8
June	6	4	10	December	3	3	6

Seasons.

Cases admitted, in each group of three months.

	1891.	1892.	Total.		1891.	1892.	Total.
Jan. to March	40	19	59	July to Sept.	5	14	19
April to June	30	13	43	Oct. to Dec.	8	9	17

Cases admitted in two groups: six warmer and six colder months.

	1891.	1892.	Total.		1891.	1892.	Total.
April to Sept.	35	27	62	Oct. to March	48	28	76

There were 13 deaths among the 55 cases—11 males, 2 females—giving a percentage of 23·63 for the year 1892, and an average for the 2 years of 21·83.

Death occurred on—

	1891.	1892.	Total.		1891.	1892.	Total.
2nd day	1	0	1 case	13th day	0	1	1 case
4th „	3	0	3 cases	14th „	1	0	1 „
5th „	1	0	1 case	15th „	0	1	1 „
6th „	1	0	1 „	17th „	1	1	2 cases
7th „	1	1	2 cases	18th „	0	1	1 case
8th „	1	0	1 case	20th „	1	0	1 „
9th „	2	2	4 cases	21st „	1	0	1 „
10th „	1	1	2 „	23rd „	1	0	1 „
11th „	0	3	3 „	47th „	1	0	1 „
12th „	0	1	1 case				

As to cause, the cases may be classed as follows:—

	1891.	1892.	Total.
Exposure to wet and cold	19	9	28
Infection or poisoning	9	8	17
Various (including traumatism)	5	0	5
No cause discovered	50	36	86

As to the termination of the pneumonia by crisis or lysis. Excluding 27 deaths (16, 1891; 11, 1892) in which the patients temperature was still febrile when death took place, and counting the cases when more than one crisis occurred by the number of these crises—

	1891.	1892.	Total.
Crisis took place in	52	35	87
Lysis „ „	23	10	33

Crisis occurred on—

	1891.	1892.	Total.		1891.	1892.	Total.
1st day.	1	0	1 case	8th day	9	5	14 cases
2nd „	2	0	2 cases	9th „	3	3	6 „
3rd „	3	1	4 „	10th „	1	3	4 „
4th „	8	1	9 „	11th „	1	2	3 „
5th „	3	4	7 „	12th „	0	1	1 case
6th „	12	6	18 „	17th „	0	1	1 „
7th „	9	8	17 „				

The duration of the fever in the cases which terminated by lysis was as follows:—

Days.	No. of cases. 1891.	1892.	Total.	Days.	No. of cases. 1891.	1892.	Total.
6	1	1	2	12	2	0	2
7	7	1	8	13	2	1	3
8	4	3	7	14	1	1	2
9	1	0	1	21	1	0	1
10	0	2	2	22	1	0	1
11	3	1	4				

The equality and inequality of the pupils during the attack of pneumonia has been observed in 103 of the cases (60, 1891; 43, 1892):—

In 48, where only one lung was affected, the pupils were equal throughout.
„ 7, where both lungs were affected, they were also equal.
„ 36, the larger pupil was on the same side as the affected lung.
„ 12, on the opposite side.

The duration of the inequality was from one day onwards, but wherever possible they were observed to see if they became equal after the attack was over.

In 51 cases (1891, 33; 1892, 18) herpes occurred; and the correspondence of the side of the lips on which the herpes occurred and the side on which the larger pupil was observed has been noted as follows:—

(In 16 of the cases the side was not noted, and in 5 of the herpes cases the pupils were not noted—thus reducing the 51 to 30.)

Side of herpes corresponded to larger pupil	in	16 cases
„ „ did not correspond to larger pupil	„	4 „
Herpes was double, and the pupils were equal	„	2 „
„ unilateral, but pupils equal	„	8 „

In 35 cases (1891, 23; 1892, 12) the correspondence of the herpes with the lung affected was noted:—

The side of the herpes corresponded with the affected lung	in	25 cases
„ „ „ did not correspond with the affected lung	„	7 „
Herpes was double, and pneumonia double	„	3 „

Out of 23 cases (1891, 18; 1892, 5), the side of the herpes and the side of the pneumonia and the larger pupil—

Corresponded	in	14 cases
Did not correspond	„	8 „
Pneumonia and herpes double, and pupils equal	„	1 case

Notes to Table F.

If nothing is stated with reference to sanitation, it implies that no information as to *bad* drainage could be obtained.

The "highest temperature" refers to the highest temperature occurring during the patient's stay in Hospital only.

"Day of crisis" is calculated from the date of onset as described by the patient, not merely the number of days fever in Hospital.

Herpes—left	= left side		
right	= right side	of mouth.	
double	= both sides		

If any other part of the body is affected, it is so stated.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
1 E. E.	7	M.	Jan.	School	None	Vomiting	Measles aet. 3	3rd	On adm.	Right upper lobe	5th	104·6	0	0	Left	—	Recovery	—	Pupils equal.
2 H. T.	18	M.	„	Butcher	Following influenza	Rigor	Temperate, good health	5th	On adm.	Left lower lobe	—	105·6	Yes	Yes	0	Bronchitis general	Death 13th day	Vol. VII., fol. 56	Pupils equal.
3 A. K.	23	F.	„	Housemaid	None	Rigor	Temperate, good health	2nd	On adm.	Right lower lobe	6th	104·6	Yes	Yes	0	Bronchitis	Recovery	—	Pupils equal.
4 A. T.	19	M.	„	Barman	None	Rigor	Alcoholic, beer; good health	10th	On adm.	Right lower lobe	10th	104	0	Yes	0	—	Recovery	—	Pupils not noted.
5 W. S.	55	M.	„	Cabman	None	Stitch	Alcoholic, beer; winter cough 3 years	5th	On adm.	Left lower lobe	7th	104·8	0	0	0	Bronchitis	Recovery	—	Left pupil larger. Pneumonia again in Dec., 1892. (No. 55.)
6 E. R.	41	F.	Feb.	Housewife	None	Stitch. vomiting	Temperate: pleurisy (R) in childhood	2nd	On adm.	Right lower lobe	9th	104	0	Yes	0	—	Recovery	—	Left pupil larger. Jaundice.
7 E. M.	4½	F.	„	—	None	Drowsiness, thirst	Good health	3rd	On adm.	Right lower lobe	6th	105	0	0	0	—	Recovery	—	Pupils equal.
8 A. D.	44	M	„	Labourer	None	Stitch	Temperate; sunstroke twice; tonsillitis	6th	On adm.	Left lower lobe	8th	102	0	0	0	—	Recovery	—	Pupils equal.

9 E. C.	25	M.	„	Labourer	None	Rigor, stitch, vomiting	Alcoholic, beer; bronchitis 4 years; syph. 2 yrs. previous	2nd	On adm.	Right lower lobe	8th	104	0	Yes	0	—	Recovery	—	Pupils not observed.
10 W.J.F.	38	M.	„	Waiter	Following influenza	Vomiting	Alcoholic, previous health not ascertained	6th	On adm.	Right lower and upper lobes (middle lobe not affected)	—	105	Yes	Yes	0	—	Death 9th day	Vol. VII., fol. 86	Pupils not observed.
11 E. S.	32	F.	Mar.	Charwoman	None	Rigor, stitch	Temperate. good health	6th	On adm.	Left lower lobe	7th	99·2	0	0	0	—	Recovery	—	Pupils not observed.
12 R. W.	1 5/12	M.	„	—	None	Vomiting, diarrhœa	Good health	4th	6th	Left upper lobe	10th	105	Yes	Yes	0	—	Recovery	—	Convulsions and urticaria during attack.
13 G. W.	23	M.	„	—	None	Stitch, rigor	Temperate. good health	4th	On adm.	Right lower lobe	5th	105·4	0	Yes	Yes	—	Recovery	—	Pupils equal.
14 E. S.	32	M.	„	Plasterer	None	Stitch, vomiting	Alcoholic, beer; smallpox 4 years previous; "inflammation of the lungs" aet. 17.	1st	On adm.	Left lower lobe	—	103·4	Yes	0	0	Pericarditis	Death 11th day	Vol. VII., fol. 106	Pupils equal.
15 H. R.	17	M.	„	Page	None	Rigor, stitch	Temperate. good health	3rd	On adm.	Right lower lobe	Lysis, 6 days fever	104	0	0	Yes	Tonsillitis	Recovery	—	Pupils equal.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
16 J. S.	30	F.	Mar.	House-wife	—	Rigor, vomiting, stitch	Alcoholic; winter cough some years	4th	On adm	Right lower lobe	—	104	Yes	Yes, much	0	Bronchitis	Death 11th day	Vol. VII., fol. 109	Pupils equal.
17 E. M.	35	F.	"	House-wife	Puerperal state	Stitch, rigor	Temperate, good health	5th	On adm	Right lower lobe	6th	102·2	Yes	Yes	0	Puerperal state	Death 7th day	Vol. VII., fol. 103	Confined Mar. 22, died Mar. 27. Uterus appeared normal, P.M., and did not appear to be the starting point of the septicæmia, which the character of the pneumonia seemed to point to during life.
8 A. D.	10	M.	"	School-boy	None	Vomiting	"Rheumatic fever and heart disease"	5th	On adm.	Right lower lobe	6th	103·6	0	0	0	—	Recovery	—	Pupils equal.
19 C. F.	1½	M.	"	—	None	Cough, anorexia	Good health	3rd	7th	Left	9th	104·6	0	0	0	—	Recovery	—	Pupils equal.
20 G. D.	18	M.	Apr.	Paper-seller	None	Stitch	Temperate; scarlet fever two years ago	6th	On adm.	Left lower lobe	7th	104	0	0	Yes	—	Recovery	—	Pupils equal. Temp. rose to 102·8 2 days after crisis, but fell at once again.

21 W. S.	4/12	M.	"	—	None	Anorexia	Good health	4th	On adm.	Left	11th	105·6	0	0	0	—	Recovery	—	Pupils equal.
22 W. K.	26	M.	"	Policeman	Draughty bedroom	Rigor, stitch	Temperate; good health	4th	On adm.	Left lower lobe	Lysis, 8 days fever	103·2	Yes	Yes	Yes, over sternum and left clavicle	Empyema	Recovery	—	Pupils equal. Resection of rib twice; complete recovery. Same house as No. 23.
23 W. B.	32	M.	"	Policeman	Draughty bedroom	Rigor, stitch	Temperate; acute rheumatism 7 years previous	2nd	On adm.	Right lower lobe	Lysis, 8 days fever	104·2	Yes	Yes	Yes	Bronchitis, empyema	Recovery	—	Pupils equal. Resection of rib, but did not do well as the drainage was insufficient. Same house as No. 22. 9 mos. later complete recovery.
24 C. G.	46	M.	May	Coach plater	Caught cold at a funeral	Rigor	Alcoholic, beer; influenza 2 months previous	3rd	On adm.	Left lower lobe	6th	103·6	0	0	0	—	Recovery	—	Pupils equal.
25 A. G.	22	F.	"	Barmaid	None	Stitch. vomiting	Temperate; Debility a year ago	3rd	On adm.	Left lower lobe	6th	104·4	0	0	Yes	—	Recovery	—	Left pupil larger.
26 P.M.R.	5	F.	"	—	None	Stitch. cough	Stenosis of trachea after tracheotomy 3 years ago; tracheotomy again recently	8th	On adm.	Left lower lobe	Lys's, 13 days fever	101·8	0	0	Yes	—	Recovery	—	Pupils equal.
27 R. Mc C.	39	F	"	Housewife	Bad smells in house	Rigor, stitch	Temperate; influenza 3 years ago	5th	On adm.	Right lower lobe	7th	104·8	0	Yes	0	—	Recovery	—	Right pupil larger, then later left.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
16 J. S.	30	F.	Mar.	House-wife	—	Rigor, vomiting, stitch	Alcoholic; winter cough some years	4th	On adm	Right lower lobe	—	104	Yes	Yes, much	0	Bronchitis	Death 11th day	Vol. VII., fol. 109	Pupils equal.
17 E. M.	35	F.	"	House-wife	Puerperal state	Stitch, rigor	Temperate, good health	5th	On adm	Right lower lobe	6th	102·2	Yes	Yes	0	Puerperal state	Death 7th day	Vol. VII., fol. 103	Confined Mar. 22, died Mar. 27. Uterus appeared normal, P.M., and did not appear to be the starting point of the septicæmia, which the character of the pneumonia seemed to point to during life.
18 H. D.	10	M.	"	School-boy	None	Vomiting	"Rheumatic fever and heart disease"	5th	On adm.	Right lower lobe	6th	103·6	0	0	0	—	Recovery	—	Pupils equal.
19 C. F.	1½	M.	"	—	None	Cough, anorexia	Good health	3rd	7th	Left	9th	104·6	0	0	0	—	Recovery	—	Pupils equal.
20 G. D.	18	M.	Apr.	Paper-seller	None	Stitch	Temperate; scarlet fever two years ago	6th	On adm.	Left lower lobe	7th	104	0	0	Yes	—	Recovery	—	Pupils equal. Temp. rose to 102·8 2 days after crisis, but fell at once again.

21 W. S.	$1\frac{4}{12}$	M.	"	—	None	Anorexia	Good health	4th	On adm.	Left	11th	105·6	0	0	0	—	Recovery	—	Pupils equal.
22 W. K.	26	M.	"	Policeman	Draughty bedroom	Rigor, stitch	Temperate; good health	4th	On adm.	Left lower lobe	Lysis, 8 days fever	103·2	Yes	Yes	Yes, over sternum and left clavicle	Empyema	Recovery	—	Pupils equal. Resection of rib twice; complete recovery. Same house as No. 23.
23 W. B.	32	M.	"	Policeman	Draughty bedroom	Rigor, stitch	Temperate; acute rheumatism 7 years previous	2nd	On adm.	Right lower lobe	Lysis, 8 days fever	104·2	Yes	Yes	Yes	Bronchitis, empyema	Recovery	—	Pupils equal. Resection of rib, but did not do well as the drainage was insufficient. Same house as No. 22. 9 mos. later complete recovery.
24 C. G.	46	M.	May	Coach plater	Caught cold at a funeral	Rigor	Alcoholic, beer; influenza 2 months previous	3rd	On adm.	Left lower lobe	6th	103·6	0	0	0	—	Recovery	—	Pupils equal.
25 A. G.	22	F.	"	Barmaid	None	Stitch. vomiting	Temperate; Debility a year ago	3rd	On adm.	Left lower lobe	6th	104·4	0	0	Yes	—	Recovery	—	Left pupil larger.
26 P.M.R.	5	F.	"	—	None	Stitch. cough	Stenosis of trachea after tracheotomy 3 years ago; tracheotomy again recently	8th	On adm.	Left lower lobe	Lys's, 13 days fever	101·8	0	0	Yes	—	Recovery	—	Pupils equal.
27 R. Mc C.	39	F	"	Housewife	Bad smells in house	Rigor, stitch	Temperate; influenza 3 years ago	5th	On adm.	Right lower lobe	7th	104·8	0	Yes	0	—	Recovery	—	Right pupil larger, then later left.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
28 W. W.	$1\frac{5}{12}$	M.	May	—	—	Vomiting	Measles $\frac{3}{12}$ ago	4th	On adm.	Left lower lobe	Double crisis, 4th and 5th	104·2	0	Yes	0	—	Recovery	—	Pupils equal.
29 J. T.	$3\frac{8}{12}$	M.	June	—	—	Vomiting	Diphtheria 1 year previous	3rd	4th	Right upper lobe	9th	105·4	0	0	0	Otorrhœa	Recovery	—	Right pupil larger.
30 C. K.	2	M.	"	—	During diphtheria	Gradual	Good health	8th	On adm.	Whole left lung	—	104·6	Yes	Yes	0	Diphtheria	Death 11th day	Vol. VII., fol.164	Pupils equal.
31 E. E.	22	F.	"	Housewife	None	Vomiting, rigor	Temperate; good health	1st	2nd	Right lower lobe	7th	104·8	Yes	0	0	Abortion (2 mos.) on 6th day	Recovery	—	Right pupil larger.
32 J. W.	16	M.	"	Messenger	? Infection from arm wound	Gradual cough	Temperate: good health; a bleeder	5th	On adm.	Left lower lobe	Lysis, 11 days fever	105	0	0	0	Bedsores	Recovery	—	Was in hosp. for hæmatoma of arm, which was opened. Expect. much stained with blood.
33 W. P.	$1\frac{1}{12}$	M.	July	—	None	Vomiting, convulsions	Measles	6th	On adm.	Right lower lobe	8th	104·6	0	No spec.	0	Diarrhœa, vomiting	Recovery	—	Death from diarrhœa a week after discharge. No P.M. allowed.
34 W. A.	$3\frac{10}{12}$	M.	"	—	None	Rigor	Measles; slight cough for 6 months	5th	On adm.	Whole right lung	—	104·6	Yes	No spec.	Left	Diarrhœa	Death 18th day	Vol. VII., fol.187	Pupils equal. Continued and severe pyrexia, 103–104.

35 J. D.	4½	M.	„	—	None	Rigor	Cough 3 months	3rd	On adm.	Left lower lobe	Lysis, 14 days fever	105	Yes	0	Left	Abscess of lung	Relief	—	Resection of rib for abscess cavity in lung. Discharged to fever hospital for S.F., still unhealed 6 weeks after. Pupils not observed. Died suddenly 2 mos. later. Part of Brazil nut found in left bronchus.
36 N. J.	3	F.	„	—	None	Gradual	Bronchitis 2 or 3 times	4th	On adm.	Left lower lobe	7th	104·4	0	No spec.	0	—	Recovery	—	Pupils not observed.
37 J. D.	18	M.	„	Boot-black	None	Rigor, stitch	Temperate; good health	2nd	On adm.	Left lower lobe and right middle lobe	Lysis, 7 days fever	103·6	0	0	0	Pleural effusion	Recovery	—	Pupils equal.
38 W. P.	4	M.	Aug.	—	None	Gradual drowsiness and anorexia	Good health	9th	On adm.	Apex of left lower lobe	Double crisis, 11th and 12th	105	0	No spec.	0	—	Recovery	—	Pupils equal.
39 J. T.	37	M.	„	Labourer	None	Rigor, vomiting	Very alcoholic; winter cough often.	14th	On adm.	Right upper lobe	—	100·4	0	No spec.	0	—	Death 15th day	Vol. VII., fol.201	Pupils not observed.
40 E. R.	6	M	„	School	None	Vomiting, rigor	Bronchitis and measles at Christmas	5th	On adm.	Right upper lobe	7th	104·6	0	0	0	—	Recovery	—	Right pupil larger.
41 W. R	37	M.	„	Labourer	Put on a damp shirt on morning of onset	Rigor	Alcoholic, good health	5th	7th	Right upper lobe	8th	103·2	Yes	0	Both sides	—	Recovery	—	First right pupil larger, then left.

TABLE F—*continued.*

Name.	Age.	Sex.	Month admitted.	Occupation.	Cause.	Mode of onset.	Previous health and habits.	Day of illness admitted.	Day of appearance of physical signs.	Part of lung affected.	Day of crisis.	Highest temperature.	Delirium.	Albumen.	Herpes.	Complications.	Result.	P. M. Book reference.	Remarks.
42 A. L.	21	M.	Aug.	Stationery porter	None	Rigor, stitch, sore throat	Temperate; good health	2nd	On adm.	Right lower lobe, then left lobe	Lysis, 10 days fever	103·8	0	0	Both sides	—	Recovery	—	Left pupil larger.
43 H. R.	42	M.	"	Labourer	None	Rigor, vomiting	Temperate; winter cough for 10 years; lobar pneumonia in hospital 5 years ago	4th	On adm.	Apex of left lower lobe	—	104·6	0	Much	0	Much dry pleurisy	Death 10th day	Vol. VII., fol.220	Left pupil larger.
44 G. C.	15	M.	Sept.	Messenger	None	Stitch, vomiting	Temperate; good health	3rd	On adm.	Right upper lobe	3rd	102·4	0	0	Both sides	—	Relief	—	Pupils equal.
45 G. P.	50	M.	"	Stonemason	None	Rigor, vomiting	Slightly alcoholic; winter cough some years	8th	On adm.	Right lower lobe	—	107	Excessive	Yes	0	Emphysema	Death 12th day	Vol. VII., fol.236	Pupils not observed.
46 W. A.	14	M.	"	Flower seller	Wet through 3 days previous	Rigor, stitch, vomiting	Temperate; pleurisy and pneumonia 1 year previous	2nd	On adm.	Apex of left lower lobe	7th	103·6	Yes	0	Left	—	Recovery	—	Right pupil larger.
47 R. V.	4½	M.	Oct.	Schoolboy	None	Gradual	Whooping cough	7th	On adm.	Left lower lobe	Lysis, 8 days fever	100·6	0	0	0	Pleural effusion	Recovery	—	Pupils equal.

48 E. G.	43	F.	„	Charwoman	Gets wet at her work often	Gradual	Temperate; bronchitis slight	14th	On adm.	Left lower lobe	17th	105	0	Trace	Left	—	Recovery	—	Pupils not observed.
49 J. T.	49	M.	Nov.	Groom	Wet through 2 days previous	Rigor, stitch	Temperate; insufficient food last 10 weeks; influenza 3 and 1 year previous	4th	On adm.	Left lower lobe	—	103	Yes	Trace	Left	—	Death 17th day	Vol. VII., fol.285	Pupils equal.
50 K. G.	38	F.	„	Housewife	During acute rheumatism	Gradual	Acute rheumatism twice before	7th	On adm.	Both lower lobes	Lysis, 10 days fever	102·4	0	Yes	0	Acute rheumatism	Recovery	—	Pupils equal.
51 C. H.	15	M.	„	Office boy	During acute rheumatism	Gradual	Enteric fever 8 weeks before	5th	On adm.	Left upper lobe	Lysis	101·2	0	0	0	Acute rheumatism; pericarditis	Recovery	—	Left pupil larger.
52 J. B.	8	M.	„	Schoolboy	—	Vomiting, rigor	Temperate; good health	2nd	4th	Right middle lobe	10th	104	Yes	Yes	0	—	Recovery	—	Pupils equal.
53 F. F.	19	M.	Dec.	Labourer	Wet through 2 days before	Rigor, vomiting	Temperate; good health	4th	5th	Right upper lobe	8th	105·2	Yes	Yes	Right	—	Recovery	—	Right pupil larger.
54 G. K.	26	M.	„	Milkman	None	Rigor, stitch, vomiting	Temperate; pleurisy (left) 12 mos. ago	4th	On adm.	Both lower lobes	—	106·8	Excessive	Yes	Left	—	Death 9th day	Vol. VII., fol.305	Left pupil larger.
55 W. S.	56	M.	„	Carman	Wet through 5 days previous	Rigor, stitch	Alcoholic, beer; left lobar pneumonia in Jan., 1892 (No. 5); winter cough 3 years	3rd	On adm.	Apex of left lower lobe	8th	105	Yes	Yes	0	—	Recovery	—	Profuse diarrhœa with crisis. Left pupil larger, but has squint.

SURGICAL REGISTRAR'S REPORT FOR THE YEAR 1891.

By W. WYNDHAM POWELL.

The total number of cases under treatment in the Surgical Wards during the past year was 1204, viz.:—

	Males.	Females.	Total.
Remaining in hospital December 31st, 1890 ...	51	24	75
Admitted during the year 1891	—	—	1129
			1204
Of these there were:			
Discharged, cured or relieved	673	373	1046
" unrelieved	21	13	34
Transferred to Medical Wards	4	—	4
Died	34	16	50
In hospital December 31st, 1891	47	23	70
			1204

The mortality during the year was 4·4 per cent.

TABLE I.—*Showing the total number of Cases of each Disease or Injury which were Discharged or Died during the year* 1891.

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1891.	
		M.	F.	M.	F.	M.	F.	M.	F.
Convulsions	1	...	1	...	...	...	...	...	...
Acute rheumatism	2	1	...	...	...	...	...	1	...
Scurvy	1	1	...	...	...	...	...	...	...
Chorea	1	...	1	...	...	...	...	...	...
Whooping cough	1	...	...	1	...	...	...	...	...
Congenital syphilis	1	...	1	...	...	...	...	...	...
Pelvic sarcoma	1	...	...	...	1	...	...	...	...
MALFORMATIONS, and acquired Deformities:									
Harelip and cleft palate	1	...	...	...	1	...	...	...	...
Harelip	3	1	1	1	...	...	...	...	...
Genu valgum	4	1	2	...	...	...	...	...	1
Talipes:									
Equinus	1	1	...	...	...	...	...	...	...
Equino-varus	5	3	...	...	1	...	...	1	...
Pes planus	2	1	1	...	...	...	...	...	...
Hammer-toe	1	1	...	...	...	...	...	...	...
Outward curved tibia	3	3	...	...	...	...	...	...	...
Ankylosis of knee in faulty position	2	1	...	1	...	...	...	...	...
Spina bifida	3	1	2	...	...	...	...	...	...
Congenital absence of rectum	1	...	...	...	...	1	...	...	...
Contracted finger	1	...	1	...	...	...	...	...	...
Withered leg (old excision of knee case)	1	1	...	...	...	...	...	...	...
Old dislocation of elbow	1	...	...	...	..	...	...	...	1
DISEASES OF THE NERVOUS SYSTEM:									
Tubercular meningitis	1	...	...	...	...	...	1	...	...
Spasmodic trismus	1	1	...	...	...	...	...	...	...
Sciatica	1	1	...	...	...	...	...	...	...
Infantile paralysis	1	...	1	...	...	...	...	...	...
Vertigo (old case of fractured skull)	1	1	...	...	...	...	...	...	...
DISEASES OF THE EAR:									
Otitis media purulenta	5	4	...	...	...	...	...	1	...
Mastoid abscess	5	3	1	...	...	1	...	...	...
DISEASES OF THE EYE:									
Conjunctivitis	3	1	2	...	...	...	...	...	...
Cataract	11	5	4	1	...	...	...	1	...
Strabismus	2	...	2	...	...	...	...	...	...
Trachoma	1	1	...	...	...	...	...	...	...
Keratitis, strumous	3	2	1	...	...	...	...	...	...
Shrivelled globe	2	...	2	...	...	...	...	...	.
Disorganisation of globe	3	2	1	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1891.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE EYE—*cont.*									
Kerato-iritis, strumous	1	1	...	...	...	...	...	...	...
„ congenital syphilis	2	2	...	...	...	...	...	...	...
Fibrous tumour of conjunctiva	1	1	...	...	...	...	...	...	...
Gonorrhœal conjunctivitis	1	1	...	...	...	...	...	...	...
Hypermetropia	1	...	1	...	...	...	...	...	...
Optic neuritis. ? Cerebral tumour	1	...	...	...	1	...	...	...	...
DISEASES OF THE NOSE:									
Deflected septum	1	1	...	...	...	...	...	...	...
Epithelioma of septum, recurrent									
Epithelioma of ala nasi									
Destruction of ala nasi (old lupus case)	1	...	...	...	1	...	...	...	...
Syphilitic ulceration	1	...	1	...	...	...	...	...	...
Tubercular tumour	1	...	1	...	...	...	...	...	...
Sarcomatous polypus	1	...	...	...	1	...	...	...	...
Naso-pharyngeal polypus	1	...	1	...	...	...	...	...	...
Epistaxis	2	2	...	...	...	...	...	...	...
DISEASES OF THE CIRCULATORY SYSTEM:									
Phlebitis and thrombosis	8	1	6	...	...	...	...	...	1
Varicose veins	12	5	1	4	...	...	...	...	2
Aneurism of common carotid	1	1	...	...	...	...	...	...	...
DISEASES OF THE LYMPHATIC SYSTEM:									
Lymphangitis	2	1	1	...	...	...	...	...	...
Lymphadenitis	8	4	4	...	...	...	...	...	...
Abscess in or about glands:									
Cervical	35	19	12	...	...	...	2	2	...
Axillary	8	4	4	...	...	...	...	...	...
Inguinal	22	17	5	...	...	...	...	...	...
Femoral	7	5	2	...	...	...	...	...	...
Parotid	2	...	2	...	...	...	...	...	...
Brachial	1	1	...	...	...	...	...	...	...
Suboccipital	1	...	1	...	...	...	...	...	...
Tubercular enlargement of glands:									
Cervical	26	11	13	1	...	...	...	...	1
Axillary	3	1	2	...	...	...	...	...	...
Secondary sarcoma of femoral glands	1	1	...	...	...	...	...	...	...
Secondary epithelioma of cervical glands	2	2	...	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1891.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE THYROID GLAND:									
Cyst	1	...	1	...	...	...	...	...	...
DISEASES OF THE RESPIRATORY SYSTEM:									
Pneumonia	2	1	1	...	...	...	...	...	...
Empyema	4	1	1	...	...	...	2	...	...
Old tracheotomy case	1	1	...	...	...	...	...	...	...
Bronchitis and emphysema	1	...	1	..	...	...	...	...	...
DISEASES OF THE DIGESTIVE SYSTEM:									
Lips:									
Nævus	1	...	1	...	...	...	...	...	...
Epithelioma of lower lip	3	1	2	...	...	...	...	...	...
Gums and jaws:									
Epithelioma of upper jaw	1	1	...	...	...	...	...	...	...
Fibrous epulis	2	...	2	...	...	...	...	...	...
Alveolar abscess	6	4	2	...	...	...	...	...	...
Ulceration of gum	1	1	...	...	...	...	...	...	...
Tongue:									
Epithelioma	5	2	...	1	...	1	...	1	...
" recurrent	1	1	...	...	...	...	...	...	...
Syphilitic induration	1	...	1	...	...	...	...	...	...
Ranula	2	...	2	...	...	...	...	...	...
Salivary calculus	1	...	1	...	...	...	...	...	...
Tonsil:									
Acute inflammation	1	1	...	...	...	...	...	...	...
" abscess	1	1	...	...	...	...	...	...	...
Hypertrophy	1	1	...	...	...	...	...	...	...
Pharynx:									
Adenoids of naso-pharynx	12	2	9	...	...	...	...	...	1
Syphilitic perforation of soft palate	1	...	1	...	...	...	...	...	...
Peritoneum and retro-peritoneal tissue:									
Hydatid cysts of peritoneum	1	...	...	...	...	...	1	...	...
Retroperitoneal sarcoma	1	...	...	...	...	1	...	...	...
Intestines:									
Hernia (not strangulated):									
Inguinal	15	12	1	...	...	...	...	2	...
Femoral	5	1	3	...	...	...	...	...	1
Ventral	2	...	2	...	...	...	...	...	...
Hernia (strangulated):									
Inguinal	1	1	...	...	...	...	...	...	...
" omental	1	1	...	...	...	...	...	...	...
Femoral	7	...	3	...	...	2	2	...	...
Acute intestinal obstruction	3	...	...	...	...	2	1	...	...
Perforation of vermiform appendix, peritonitis	1	...	...	...	...	1	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1891.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE DIGESTIVE SYSTEM—*continued.*									
Intestines—continued.									
Strictured artificial anus ...	1	1	...	...	...	...	...	...	...
Ulceration of colon	1	...	1	...	...	...	...	...	...
Abscess communicating with bowels	1	...	...	1	...	...	...	...	...
Constipation	2	1	1	...	...	...	...	...	...
Rectum and anus:									
Hæmorrhoids	9	4	4	1	...	...	...	...	...
Fissure	2	2	...	...	...	...	...	...	...
Fistula	16	13	1	...	...	1	...	1	...
Ischio-rectal abscess	2	2	...	...	...	...	...	...	...
Peri-anal abscess	1	1	...	...	...	...	...	...	...
Prolapsus	2	1	1	...	...	...	...	...	...
Carcinoma of rectum	2	...	...	2	...	...	...	...	...
Syphilitic stricture of rectum	1	...	1	...	...	...	...	...	...
DISEASES OF THE URINARY SYSTEM:									
Kidney:									
Chronic nephritis	1	...	...	...	...	...	1	...	...
Hydronephrosis	1	...	...	...	...	1	...	...	...
Floating kidney	1	...	1	...	...	...	...	...	...
Calculus	1	...	1	...	...	...	...	...	...
Tubercular	1	...	1	...	...	...	...	...	...
Hæmaturia, turpentine	1	1	...	...	...	...	...	...	...
Bladder:									
Cystitis	2	1	1	...	...	...	...	...	...
Calculus	3	1	1	...	...	...	...	1	...
Carcinoma	3	...	...	...	2	1	...	...	...
Prostate:									
Acute abscess	1	1	...	...	...	...	...	...	...
Hypertrophy	2	2	...	...	...	...	...	...	...
Malformation. Surgical kidneys	1	...	...	...	...	1	...	...	...
Urethra:									
Gonorrhœa	1	1	...	...	...	...	...	...	...
Stricture, gonorrhœal	8	4	...	1	...	1	...	2	...
,, traumatic	4	3	...	...	...	...	...	1	...
Retention of urine, stricture	3	3	...	...	...	...	...	...	...
Extravasation of urine, stricture	2	1	...	...	...	1	...	...	...
Peri-urethral inflammation	1	1	...	...	...	...	...	...	...
Perineal abscess, stricture ..	1	1	...	...	...	...	...	...	...
,, fistula, stricture ...	3	3	...	...	...	...	...	...	...
Hæmorrhage from urethra..	1	1	...	...	...	...	...	...	...
Retention of urine ? cause ..	1	...	1	...	...	...	...	...	...
Hæmaturia ? cause	3	2	1	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1891.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE MALE GENERATIVE ORGANS:									
Penis:									
Phimosis, congenital	24	24	...	...	...	...	...	...	...
„ acquired	12	12	...	...	...	...	...	...	...
Paraphimosis	4	4	...	...	...	...	...	...	...
Gonorrhœal warts	1	1	...	...	...	...	...	...	...
Cellulitis after circumcision	1	1	...	...	...	...	...	...	...
Cord:									
Varicocele	8	7	...	...	...	...	...	1	...
Tunica vaginalis:									
Hydrocele	4	4	...	...	...	...	...	...	...
Testis:									
Epididymitis, gonorrhœal	1	1	...	...	...	...	...	...	...
„ tubercular	3	3	...	...	...	...	...	...	...
Orchitis, traumatic	1	1	...	...	...	...	...	...	...
„ gouty	1	1	...	...	...	...	...	...	...
Hæmatoma	1	1	...	...	...	...	...	...	...
Undescended	1	1	...	...	...	...	...	...	...
DISEASES OF THE FEMALE GENERATIVE ORGANS:									
Vulva:									
Inflammation and abscess	2	...	2	...	...	...	...	...	...
Syphilitic hypertrophy	1	...	1	...	...	...	...	...	...
Epithelioma	1	...	...	...	1	...	...	...	...
Uterus and appendages:									
Hydrosalpinx and perimetritis	1	...	1	...	...	...	...	...	...
Breast:									
Acute abscess	9	...	9	...	...	...	...	...	...
Acute mastitis	2	...	2	...	...	...	...	...	...
Chronic „	3	...	3	...	...	...	...	...	...
Adeno-fibroma	1	...	1	...	...	...	...	...	...
Sarcoma	1	...	1	...	...	...	...	...	...
Scirrhus:									
I. Primary	9	...	8	...	...	...	1	...	...
II. Recurrent	5	...	4	...	1	...	...	...	...
DISEASES OF BONES:									
Periostitis and ostitis:									
Of femur (traumatic)	1	1	...	...	...	...	...	...	...
Of internal cuneiform bone	1	1	...	...	...	...	...	...	...
Of tibia	6	2	4	...	...	...	...	...	...
Of radius (acute necrosis)	1	...	...	...	...	...	1	...	...
Of tibia (acute necrosis)	1	...	...	...	...	1	...	...	...
Necrosis:									
Of superior maxilla	1	...	1	...	...	...	...	...	...
Of inferior „	4	1	3	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died		In Hosp. 31st Dec., 1891.	
		M	F	M	F	M.	F.	M.	F.
DISEASES OF BONES—*continued.*									
Necrosis—*continued.*									
Of rib	1	...	1	..	...	...	...	...	...
Of humerus	2	1	1	...	...	...	...	...	...
Of olecranon process	1	1	...	...	...	...	...	...	...
Of metacarpal bone	1	...	1	...	...	...	...	...	...
Of phalanges	2	2	...	...	...	...	...	...	...
Of femur	1	1	...	...	...	...	...	...	...
Of tibia	3	1	2	...	...	...	...	...	...
Tubercular caries:									
Of spine	17	5	10	...	...	...	1	1	...
Of ilium	1	1	...	...	...	...	...	...	...
Of tarsus	5	3	1	...	...	1	...	...	...
Of metatarsus	2	1	1	...	...	...	...	...	...
Of metacarpus	2	1	1	...	...	...	...	...	...
Exostosis	2	1	1	...	...	...	...	...	...
Osteoma of tibia	1	...	...	1	...	...	...	...	...
Sarcoma of humerus	1	...	...	...	...	1	...	...	...
„ of tibia, periosteal	2	2	...	...	...	...	...	...	...
Periosteal gumma of rib	1	1	...	...	...	...	...	...	...
Ununited fracture of tibia	1	...	1	...	...	...	...	...	...
DISEASES OF JOINTS:									
Synovitis:									
I. Acute and subacute:									
Of knee	13	8	4	...	...	...	...	1	...
Of elbow	1	1	...	...	...	...	...	...	...
II. Chronic:									
Of knee	3	3	...	...	...	...	...	...	...
Of metatarso-phalangeal	1	1	...	...	...	...	...	...	...
Arthritis:									
I. Acute:									
Of knee, tubercular	1	...	...	...	...	1	...	...	...
„ septic	1	...	...	...	...	...	...	...	1
II. Chronic:									
Of hip, tubercular	27	19	5	...	1	...	...	...	2
Of knee, „	7	2	4	...	...	...	...	1	...
Of elbow, „	2	1	...	...	...	...	...	...	1
Of ankle, „	1	1	...	...	...	...	...	...	...
Chronic rheumatic arthritis	1	...	...	1	...	...	...	...	...
Dislocation of hip after scarlet fever	1	...	...	...	...	...	...	1	...
Hysterical knee joint	1	...	1	...	...	...	...	...	...
Displacement of semi-lunar cartilage	3	2	1	...	...	...	...	...	...
Ankylosis:									
I. Fibrous:									
Of shoulder	5	2	2	1	...	...	...	...	...
Of elbow	1	...	1	...	...	...	...	...	...
Of hip	1	...	1	...	...	...	...	...	...
Of knee	1	1	...	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1891.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF STUMPS:									
Conical	1	...	1	...	...	...	...	...	...
Ulceration	1	1	...	...	...	...	...	...	...
DISEASES OF MUSCLES, FASCIÆ, AND TENDON SHEATHS:									
Lateral curvature of spine	7	2	5	...	...	...	...	...	...
Partial rupture of gastrocnemius	1	...	1	...	...	...	...	...	...
Ganglion back of wrist	1	1	...	...	...	...	...	...	...
DISEASES OF BURSÆ:									
I. Acute bursitis:									
Of prepatellar bursa	3	...	3	...	...	...	...	...	...
II. Chronic effusion:									
In prepatellar bursa	2	...	2	...	...	...	...	...	...
Chronic solid enlargement of prepatellar bursa	3	...	3	...	...	...	...	...	...
III. Suppuration:									
Of prepatellar bursa	1	...	1	...	...	...	...	...	...
Hæmorrhage into prepatellar bursa	1	1	...	...	...	...	...	...	...
Enlargement of semi-membranosus bursa	2	1	1	...	...	...	...	...	...
Bunion	1	...	...	...	1	...	...	...	...
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES:									
Gangrene, senile:									
Of foot	1	...	...	...	1	...	...	...	...
Of foot and leg	1	...	...	1	...	...	...	...	...
Sinus:									
Hepatic, old abscess case	2	2	...	...	...	...	...	...	...
Over ribs, tubercular	2	2	...	...	...	...	...	...	...
In scrotum, after operation for varicocele	2	2	...	...	...	...	...	...	...
In breast, after amputation	1	...	1	...	...	...	...	...	...
In loin, old nephrectomy case	1	...	...	...	..	...	1	...	...
In thigh, old abscess case	2	2	...	...	...	...	...	...	...
Abscess:									
I. Acute:									
Of scalp	2	1	1	...	...	...	...	...	...
Alveolar	3	3	...	...	...	...	...	...	...
Of chest wall	1	1	...	...	...	...	...	...	...
Of hand	1	1	...	...	...	...	...	...	...
Of arm	3	...	2	...	...	...	...	1	...
Of foot	5	3	2	...	...	...	...	...	...
Of leg	3	2	...	...	...	...	...	1	...
Around knee joint	2	...	2	...	...	...	...	...	...
Of thigh	9	5	1	...	...	...	...	3	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1891.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES—*cont.*									
Abscess—*continued.*									
I. Acute—*continued.*									
Over sacrum and ilium..	2	...	2	...	...	...	...	...	...
Perineal	1	1	...	...	...	...	...	...	...
Scrotal	1	1	...	...	...	...	...	...	...
Of neck	2	2	...	...	...	...	...	...	...
Of face	1	1	...	...	...	...	...	...	...
Whitlow	10	5	5	...	...	...	...	...	...
II. Chronic—									
Of chest wall	4	3	1	...	...	...	...	...	...
Of fore arm	1	1	...	...	...	...	...	...	...
Of arm	2	...	2	...	...	...	...	...	...
Around shoulder joint...	2	2	...	...	...	...	...	...	...
Of foot	2	2	...	...	...	...	...	...	...
Of knee, old excision case	1	...	1	...	...	...	...	...	...
Of thigh	2	1	1	...	...	...	...	...	...
Of buttock	1	1	...	...	...	...	...	...	...
Of abdominal wall	1	...	1	...	...	...	...	...	...
Lumbar	2	...	2	...	...	...	...	...	...
Psoas	1	...	...	...	...	...	...	...	1
Multiple	1	1	...	...	...	...	...	...	...
Cellulitis:									
Of upper extremity, with suppuration	20	13	4	...	...	...	...	3	...
Of upper extremity, without suppuration	5	2	2	...	...	...	...	...	1
Diffuse phlegmonous, P.M. wound	1	...	...	...	...	1	...	...	...
Diffuse phlegmonous, wound of hand	1	...	...	...	...	1	...	...	...
Of orbit, traumatism	1	1	...	...	...	...	...	...	...
Of front of chest	1	1	...	...	...	...	...	...	...
Of neck	1	1	...	...	...	...	...	...	...
Of face	1	...	...	...	...	...	...	1	...
Tubercular dactylitis	5	2	2	...	...	...	...	1	...
After herniotomy	1	1	...	...	...	...	...	...	...
Of lower extremity, with suppuration	5	4	...	...	...	1	...	...	...
Of lower extremity, without suppuration	3	3	...	...	...	...	...	...	...
Of foot, suppurating corn...	1	...	1	...	...	...	...	...	...
Frost bite of foot	2	2	...	...	...	...	...	...	...
Carbuncle:									
Of back	1	...	1	...	...	...	...	...	...
Of thigh	1	...	...	...	...	...	...	1	...
Ulcers:									
I. Simple:									
Of leg	1	...	1	...	...	...	...	...	...
Of foot	1	...	1	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1891.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES—*cont.*									
Ulcers—*continued.*									
II. Varicose:									
Of leg	6	2	4	...	...	...	...	...	...
III. Tubercular:									
Of shoulder	2	2	...	...	...	...	...	...	...
Of arm	1	...	1	...	...	...	...	...	...
Of leg	1	...	...	...	...	...	...	1	...
Of ankle	1	...	1	...	...	...	...	...	...
Multiple	1	...	1	...	...	...	...	...	...
IV. Traumatic:									
Of leg	1	...	1	...	...	...	...	...	...
V. Syphilitic:									
Of lower extremity	4	3	1	...	...	...	...	...	...
Cysts:									
I. Sebaceous—									
Of scalp	1	...	1	...	...	...	...	...	...
Of side	1	1	...	...	...	...	...	...	...
II. Serous:									
Congenital of neck	1	...	...	1	...	...	...	...	...
Of canal of Nuck	1	...	1	...	...	...	...	...	...
Bursal cyst over knee joint	1	...	1	...	...	...	...	...	...
UNCLASSIFIED:									
Lupus	14	3	10	...	...	...	...	...	1
Rodent ulcer	2	2	...	...	...	...	...	...	...
Keloid	1	1	...	...	...	...	...	...	...
Epithelioma of cheek	2	2	...	...	...	...	...	...	...
Psoriasis	1	1	...	...	...	...	...	...	...
Eczema of arm	1	1	...	...	...	...	...	...	...
Mycosis fungoides	1	...	...	1	...	...	...	...	...
Nævus	7	4	3	...	...	...	...	...	...
Degenerated nævus	2	2	...	...	...	...	...	...	...
Ingrowing toe-nail	3	1	1	...	...	...	...	...	1
Lipoma of thigh	3	1	2	...	...	...	...	...	...
" of buttock	1	...	1	...	...	...	...	...	...
Fibro-lipoma of buttock	1	...	1	...	...	...	...	...	...
Lipoma of neck	1	1	...	...	...	...	...	...	...
Boils	1	1	...	...	...	...	...	...	...
Nil	1	...	1	...	...	...	...	...	...
INJURIES:									
Burns:									
I. Extensive	2	...	1	...	...	...	1	...	...
II. Local	13	3	8	...	...	...	...	1	1
Scalds:									
I. Extensive	2	1	1	...	...	...	...	...	...
II. Local	8	5	2	...	...	...	...	...	1
Immersion, attempted suicide	4	4	...	...	...	...	...	...	...
Ammonia poisoning, accidental	1	1	...	...	...	...	...	...	...

TABLE I.—*continued.*

INJURIES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1891.	
		M.	F.	M.	F.	M.	F.	M.	F.
INJURIES—*continued.*									
Injuries of the head:									
Scalp wound	26	17	8	...	...	...	...	1	...
Fractures:									
Vertex, compound	4	4	...	...	...	...	...	...	...
Base	8	2	...	...	...	5	...	1	...
Concussion of brain	41	32	7	...	...	1	...	1	...
Bullet wound of roof of mouth, suicide	1	...	...	...	...	1	...	...	...
Injuries of the face:									
Contusion	4	4	...	..	...	...	...	...	...
Wounds:									
Contused	2	...	2	...	...	...	...	...	...
Lacerated	2	2	...	...	...	...	...	...	...
Incised	3	2	1	...	...	...	...	...	...
Fractured inferior maxilla	2	1	1	...	...	...	...	...	...
„ nasal bones	3	2	1	...	...	...	...	...	...
Injuries of the eye:									
Incised wound of sclerotic	2	2	...	...	...	...	...	...	...
Punctured wound of cornea, prolapse of iris	1	...	1	...	...	...	...	...	...
Shot wound	1	1	...	...	...	...	...	...	...
Hæmorrhage into anterior chamber	1	1	...	...	...	...	...	...	...
Injuries of the neck:									
Contusion, attempted suicide by strangulation	1	1	...	...	...	...	...	...	...
Cut throat, suicide	1	...	...	...	...	1	...	...	...
Laceration of tonsil by whistle	1	1	...	...	...	...	...	...	...
Injuries of the back:									
Contusion	7	6	1	...	...	...	...	...	...
Fractured Spine	1	...	...	...	...	1	...	...	...
Strain of erector spinæ	2	2	...	...	...	...	...	...	...
Concussion of spinal cord	2	1	1	...	...	...	...	...	...
Injuries of the chest:									
Contusion	8	6	2	...	...	...	...	...	...
Fractured ribs	8	5	2	...	...	...	...	1	...
Contusion followed by pleurisy	1	1	...	...	...	...	...	...	...
Bullet wound	1	...	...	...	...	...	...	1	...
Injuries of the abdomen:									
Contusion	2	1	1	...	...	...	...	...	...
Strain of rectus muscle	1	...	1	...	...	...	...	...	...
Hæmatoma	1	...	1	...	...	...	...	...	...
Injuries of the upper extremity:									
Contusion	3	3	...	...	...	...	...	...	...
Wounds:									
Incised	5	4	1	...	...	...	...	...	...
Lacerated	6	6	...	...	...	...	...	...	...
Crushed fingers	15	14	1	...	...	...	...	...	...
„ forearm	1	1	...	...	...	...	...	...	...

TABLE I.—*continued.*

INJURIES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1891.	
		M.	F.	M.	F.	M.	F.	M.	F.
INJURIES—*continued.*									
Injuries of the upper extremity —continued.									
Fractures:									
I. Simple:									
Clavicle	2	1	1	...	...	...	...	...	...
Humerus (2 intracapsular)	5	2	1	...	...	...	...	1	1
Radius and ulna	1	...	1	...	...	...	...	...	...
Radius, shaft	3	2	1	...	...	...	...	...	...
Colles'	1	...	1	...	...	...	...	...	...
Ulna (olecranon process)	1	1	...	...	...	...	...	...	...
II. Compound:									
Radius and ulna	2	1	...	...	...	1	...	...	...
Humerus	4	4	...	...	...	...	...	...	...
Thumb	1	1	...	...	...	...	...	...	...
Injuries of the lower extremity:									
Contusion	11	8	2	...	...	...	...	1	...
Hæmatoma of thigh	2	1	1	...	...	...	...	...	...
Wounds:									
Incised	1	...	1	...	...	...	...	...	...
Punctnred	3	2	1	...	...	...	...	...	...
Lacerated	6	4	1	...	...	1	...	...	...
Crushed toe	1	1	...	...	...	...	...	...	...
Ruptured tendo Achillis	1	1	...	...	...	...	...	...	...
Fractures:									
I. Simple:									
Femur, shaft	16	8	4	...	...	...	...	2	2
" intracapsular	10	5	4	...	...	...	...	1	...
Tibia	9	5	3	...	...	...	...	1	...
Fibula	11	11	...	...	...	...	...	...	...
Tibia and fibula	7	5	1	...	...	1	...	...	...
Pott's	10	6	3	...	...	...	...	1	...
Patella	2	1	...	...	...	...	...	...	1
Foot bones	5	5	...	...	...	...	...	...	...
II. Compound:									
Tibia ond fibula	1	1	...	...	...	...	...	...	...
Tibia	1	...	...	...	...	...	...	...	1
Dislocations:									
Metacarpo-phalangeal	1	1	...	...	...	...	...	...	...
" " of thumb	1	...	...	...	...	...	...	1	...
Subastragaloid of foot, outwards	1	1	...	...	...	...	...	...	...
Clavicle, outer end	3	3	...	...	...	...	...	...	...
Of shoulder	1	1	...	...	...	...	...	...	...
Sprain:									
Of elbow	2	...	1	...	...	...	...	1	...
Of ankle	16	13	3	...	...	...	...	...	...
Of knee	3	1	1	...	...	...	...	1	...
Of hip	5	1	4	...	...	...	...	...	...
Of spine	1	1	...	...	...	...	...	...	...
Multiple fractures: "Run over"	1	...	...	...	...	...	1	...	...

TABLE II.—*Operations.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1891.		Remarks.
		M.	F.	M.	F.	M.	F.	
HEAD AND NECK:								
For epithelioma of lip	3	1	2	...	...	...	...	Excision of growth.
„ „ of tongue	4	3	...	*1	...	...	...	Excision. *On 40th day of septic pneumonia.
„ „ of cervical glands	1	1	...	...	...	...	...	Excision. Old tongue case.
„ „ of nose ..	2	2	...	...	...	...	...	Removal and Paquelin's cautery.
„ „ of cheek	2	2	...	...	...	...	...	1 excised. 1 scraped.
„ „ of upper jaw...	1	1	...	...	...	...	...	Partial removal of upper jaw.
„ nævus of face.....	1	1	...	...	...	...	...	Excision.
„ degenerated nævus of neck.....	1	1	...	...	...	...	...	Excision.
„ keloid of face.....	1	1	...	...	...	...	...	Excision.
„ lupus	10	3	7	...	...	...	...	Scraping. Three Koch's injection also.
„ harelip	2	1	1	...	...	...	...	Trimming and suturing.
„ salivary calculus..	1	...	1	...	...	...	...	Removal from floor of mouth.
„ adenoids of naso-pharynx	11	2	9	...	...	...	...	Forceps and curette.
„ fibrous epulis.....	2	...	2	...	...	...	...	Removal.
„ naso - pharyngeal polypus.....	1	...	1	...	...	...	...	Removal with forceps.
„ tubercular cervical glands.....	12	6	6	...	...	...	...	Excision.
„ necrosis of inferior maxilla.....	3	1	2	...	...	...	...	Sequestrotomy. 1 trephining.
„ lipoma of neck ...	1	1	...	...	...	...	...	Excision.
„ otitis media and mastoid abscess..	3	3	...	...	...	...	...	Trephining mastoid cells.
„ cyst of thyroid gland.....	1	...	1	...	...	...	...	Excision. Size Tangerine orange.
„ aneurism of common carotid	1	1	...	...	...	...	...	Ligature of common carotid, at first distally, and subsequently on proximal side for secondary hæmorrhage. *Vide* W. H. reports, vol. vii.
„ chronic abscess of neck	1	...	...	...	1	...	...	Death on 11th day after opening and scraping abscess from septic pericarditis. Abscess cavity was drained, and discharge appeared to be sweet.
EYES:								
For cataract	11	7	4	...	...	...	...	Extraction. 1 needled.
„ strabismus	2	...	2	...	...	...	...	1 division of internal recti. 1 shortening of internal recti.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1891.		Remarks.
		M.	F.	M.	F.	M.	F.	
EYES—*continued.*								
For shrivelled globe ...	1	...	1	...	...	...	...	Excision.
„ disorganisation of globe	4	3	1	...	...	...	...	Excision.
„ shot wound.....	1	1	...	...	...	...	...	Excision.
„ syphilitic kerato-iritis	1	1	...	...	...	...	...	Double iridectomy.
THORACIC REGION:								
For empyema	4	1	1	...	*2	...	...	Excision of piece of rib. *1 from whooping cough and pneumonia. 1 from exhaustion.
„ venous nævus ...	2	1	1	...	...	...	...	Ligature.
„ degenerated nævus.....	1	1	...	...	...	...	...	Excision.
„ sebaceous cyst ...	1	1	...	...	...	...	...	Excision.
„ tubercular axillary glands	2	1	1	...	...	...	...	Excision.
BREAST:								
For scirrhus, primary..	9	...	8	...	*1	...	...	Amputation. *Æt. 80. Death from bronchitis. Very anxious for operation.
„ „ recurrent	4	...	4	...	...	...	...	Excision of growth.
„ fibro-adenoma ...	1	...	1	...	...	...	...	Excision of growth.
„ sarcoma	1	...	1	...	...	...	...	Amputation. Weight nearly 4 lbs.
„ chronic mastitis ..	2	...	2	...	...	...	...	1 amputation of breast. 1 excision of indurated lobule for neuralgia.
ABDOMINAL REGION:								
For acute intestinal obstruction	3	...	...	2	1	...	...	3 abdominal section. 1 due to adhesion of ileum to old femoral hernia sac and acute kinking. 1 due to strangulation of ileum under an adherent appendix. Death in 2 hours from collapse. 1 due to scirrhus of sigmoid flexure. Inguinal colotomy done. Death from peritonitis. *Vide* W. H. reports, vol. vii.
„ hydatid disease of the peritoneum ..	1	...	...	...	1	...	...	Abdominal section and removal of a number of the cysts. Death in 30 hours from shock. An old ruptured cyst found in liver. *Vide* W. H. reports, vol. vii.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1891.		Remarks.
		M.	F.	M.	F.	M.	F.	
ABDOMINAL REGION—*continued.*								
For perforation of the vermiform appendix and peritonitis	1	...	...	1	...	...	...	Abdominal section and ligature of appendix. Death in 10 hours.
„ cyst of canal of Nuck	1	...	1	...	...	...	...	Incision and removal of cyst wall.
„ radical cure of inguinal hernia	4	4	...	...	...	...	...	
„ congested inguinal omentocele	1	1	...	...	...	...	...	Herniotomy and removal of mass.
„ strangulated congenital inguinal hernia	1	1	...	...	...	...	...	Herniotomy and operation for radical cure. Constriction just above testicle.
„ strangulated femoral hernia	7	...	3	*2	†2	...	...	Herniotomy. *1 on following day. P.M. gut gangrenous. *1 death in 5 hours from perforation. † 1 death in 15 days from bronchitis. Operation in this case under cocaine. †1 death on operating table from vomited matter entering trachæa. There was excessive stercoraceous vomiting, and the patient was delirious, and collapsed on admission. No P.M.
ABOUT RECTUM AND ANUS:								
For hæmorrhoids	6	4	2	...	...	...	...	Clamp and cautery.
„ fistula	15	13	1	*1	...	...	...	Division. * 1 from phthisis and bronchitis when convalescent from the operation.
„ fissure	2	2	...	...	...	...	...	Partial division of sphincter.
„ syphilitic stricture of rectum	...	...	...	...	...	...	...	Partial excision of rectum, including stricture. Patient could not dispense with the use of bougies afterwards.
„ congenital absence of rectum	1	...	...	1	...	...	...	Perineum explored and inguinal colotomy performed. P.M. colon ended in a cul de sac.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1891.		Remarks.
		M.	F.	M.	F.	M.	F.	
GENITO-URINARY ORGANS:								
For hydronephrosis ...	1	...	...	1	...	...	...	? Blood cyst. Death in 7 hours from hæmorrhage. P.M. A second renal artery was found unsecured. The tumour had been incised on a previous occasion, and a large quantity of bloody fluid evacuated.
„ tubercular disease of kidney	1	...	1	...	...	...	...	Nephrectomy.
„ renal calculus.....	1	...	1	...	...	...	...	Nephrolithotomy. Large irregular oxalate calculus, weighing 520 grains, removed through cortex.
„ hydrosalpinx	1	...	1	...	...	...	...	Abdominal section.
„ vesical calculus...	1	...	1	...	...	...	...	Rapid dilatation and incision of urethra. No incontinence.
„ varicocele	7	7	...	...	...	...	...	Double ligature and excision of portion of veins.
„ hydrocele (old) ...	1	1	...	...	...	...	...	Incised and allowed to granulate.
„ tubercular testis ..	2	2	...	...	...	...	...	Castration.
„ hæmatoma of testis	1	1	...	...	...	...	...	Castration. Infant 14 days old. Thought to be a sarcoma.
„ ruptured perineum	1	...	1	...	...	...	...	Plastic operation.
„ perineal urinary abscess	1	1	...	...	...	...	...	Opened and stricture dilated.
„ extravasation of urine	1	1	...	...	...	...	...	Cock's operation and incisions; stricture subsequently dilated.
„ stricture of urethra	3	2	...	*1	...	...	...	1 rapid dilatation. 1 external urethrotomy. * Wheelhouse's operation. Advanced surgical kidneys.
„ phimosis	35	35	...	...	...	...	...	Circumcision. 2 slitting up foreskin.
„ paraphimosis	4	4	...	...	...	...	...	Division of constriction.
ON UPPER LIMB:								
For ankylosis of shoulder joint	2	2	...	...	...	...	...	1 resection of V-shaped piece of clavicle. 1 breaking down adhesions.
„ ankylosis of elbow joint	1	...	1	...	...	...	...	Excision of joint.
„ necrosis of olecranon process	1	1	...	...	...	...	...	Sequestrotomy.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1891.		Remarks.
		M.	F.	M.	F.	M.	F.	
ON UPPER LIMB—*cont.*								
For exostosis of radius	1	1	...	...	...	...	...	Removal.
„ lupus	2	...	2	...	...	...	...	Scraping.
ON LOWER LIMB:								
For periostitis and ostitis of femur	1	...	1	...	...	...	...	Trephining.
„ periostitis and ostitis of tibia	4	2	2	...	...	...	...	Trephining and gouging.
„ necrosis of femur	1	1	...	...	...	...	...	Gouging.
„ „ of tibia	1	...	1	...	...	...	...	Sequestrotomy.
„ caries of 1st metatarsal bone	2	1	1	...	...	...	...	Partial excision.
„ conical stump	1	1	...	...	...	...	...	Removal of bone.
„ ununited fracture of tibia	1	...	1	...	...	...	...	Freshening ends of bone.
„ outward curved tibia	3	3	...	...	...	...	...	1 double osteotomy. 2 single osteotomy.
„ genu valgum	3	1	2	...	...	...	...	Double Macewan's osteotomy.
„ morbus coxæ	2	1	1	...	...	...	...	Excision through trochanter major.
„ contracted knee	1	1	...	...	...	...	...	Forcibly straightened and fixed.
„ displaced semilunar cartilage	1	1	...	...	...	...	...	Joint opened and head of tibia gouged.
„ pes planus	2	1	1	...	...	...	...	"Firing."
„ talipes equinovarus	2	2	...	...	...	...	...	1 excision of wedge from os calcis, and division of neck of astragalus and tendo Achillis. 1 tenotomy.
„ enlargement of semi-membranous bursa	2	1	1	...	...	...	...	Excision of cyst.
„ chronic enlargement of bursa patella	3	...	3	...	...	...	...	Excision.
„ suppuration of bursa patella	1	...	1	...	...	...	...	Incision and drainage.
„ bursal cyst over knee joint	1	...	1	...	...	...	...	Excision.
„ sarcoma of femoral glands, secondary	1	...	1	...	...	...	...	Excision.
„ lipoma of buttock	2	...	2	...	...	...	...	Excision.
„ „ of thigh	3	1	2	...	...	...	...	Excision.
„ varicose veins	5	4	1	...	...	...	...	1 incision and ligature. 4 hare-lip pins.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp. 31st Dec., 1891.		Remarks.
		M.	F.	M.	F.	M.	F.	
AMPUTATIONS:								
Of thigh	8	3	1	*4	...	...	...	1 for withered leg (old excision of knee case). 1 for tubercular knee joint. 2 for sarcoma of tibia. * 1 for acute periostitis of tibia. Death from septic pneumonia. *1 for gangrene after laceration of leg, with excessive hæmorrhage. Death from exhaustion. *1 for suppurative arthritis of knee joint. Death from exhaustion. *1 for sloughing cellulitis of leg and thigh. Death from pyæmia.
At hip joint	1	1	...	...	...	...	...	For morbus coxæ. Previous excision.
Syme's	3	2	1	...	...	...	...	For tubercular disease of tarsus.
Of leg	1	1	...	...	...	...	...	For tubercular disease of ankle joint.
„ toe	3	3	...	...	...	...	...	1 crush. 1 hammer-toe. 1 painful after gonorrhœal rheumatism.
At shoulder joint	1	...	...	1	...	...	...	For sarcoma of head of humerus. Sloughing of flaps. Erysipelas of face. Death from exhaustion. P.M. Secondary deposits in the viscera.
Through arm	5	4	1	...	...	...	...	1 for diffuse cellulitis of forearm. 1 for cellulitis and necrosis (diabetes). 1 for syphilitic necrosis of humerus. 1 for tubercular disease of elbow joint. 1 for crush of forearm.
„ forearm	2	2	...	...	...	...	...	1 for rodent ulcer of back of hand. 1 for cellulitis and necrosis of hand.
Of fingers	21	17	4	...	...	...	...	For crush and whitlow.

TABLE III.—*Cases of Infectious Diseases during the Year* 1891.

Sex.	Age.	Date of Admission.	Disease for which Admitted.	Hospital Disease.	Result and Date.
F.	6	January 7, 1891	Burn of arm, abdomen, etc.	Erysipelas	Recovered June 15.
M.	59	„ 30, „	Sarcoma humerus	Facial erysipelas	Died February 28.
M.	12	February 24, „	Chronic abscess of thigh	Erysipelas	Recovered April 20.
F.	31	March 5, „	Mammary abscess	„	Recovered March 31.
F.	15	August 17, „	Tubercular arthritis of knee	Scarlet fever	Sent to fever hospital August 19.
M.	69	„ 20, „	P. M. wound of hand	Diffuse cellulitis	Died August 22.
F.	2	September 24, „	Scald	Measles	Recovered November 29.
M.	14	October 12, „	Hip joint disease	Scarlet fever	Sent to fever hospital October 16.
M.	64	„ 13, „	Wound of hand	Diffuse cellulitis	Died October 16.
M.	14	„ 20, „	Hip joint disease	Erysipelas	Recovered April 20.
M.	15	„ 30, 1890	Cellulo-cutaneous erysipelas of leg	„	Recovered December 17.
M.	15	November 4, 1891	Diffuse infective periostitis of tibia	Septic pneumonia	Died November 22.
M.	50	„ 15, „	Diffuse cellulitis of leg	Pyæmia	Died March 4.
M.	20	„ 23, 1890	Flat foot	Scarlet fever	Sent to fever hospital December 17.
F.	3	„ 29, 1891	Diffuse infective periostitis of radius	Septic pneumonia	Died November 30.
F.	55	December 14, „	Chronic abscess of neck	Purulent pericarditis	Died December 25.

SURGICAL REGISTRAR'S REPORT FOR THE YEAR 1892.

By W. WYNDHAM POWELL.

The total number of cases under treatment in the Surgical Wards during the past year was 1359, viz.:—

	Males.	Females.	Total.
Remaining in hospital December 31st, 1891 ...	47	23	70
Admitted during the year 1892			1289
			1359
Of these there were:			
Discharged, cured, or relieved	744	461	1205
" unrelieved	7	5	12
Transferred to the medical wards	2	2	4
Died	28	18	46
In hospital December 31st, 1892	57	35	92
			1359

The mortality during the year was 3·38 per cent.

TABLE I.—*Showing the total number of Cases of each Disease or Injury which were Discharged or Died during the year* 1892.

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F	M.	F.
Influenza and Nephralgia	1	...	1	...	...	...	...	...	...
Starvation	1	1	...	...	...	...	...	...	...
Rickets	2	1	...	...	...	...	...	1	...
Gonorrhœal rheumatism	7	4	2	...	...	...	...	1	...
Chronic rheumatism of spine	1	1	...	...	...	...	...	...	...
Lumbago	1	1	...	...	...	...	...	...	...
Erythema nodosum	1	1	...	...	...	...	...	...	...
Syphilis, primary	2	1	1	...	...	...	...	...	...
„ gummata	3	1	1	...	...	...	...	...	1
Sarcoma of neck	1	...	...	1	...	...	...	...	...
„ back, recurrent	1	1	...	...	...	...	...	...	...
„ toe	1	...	1	...	...	...	...	...	...
Congenital tumour of neck ("accessory auricle")	1	...	...	1	...	...	...	...	...
MALFORMATIONS, and acquired Deformities:									
Harelip	2	2	...	...	...	...	...	...	...
Cleft soft palate	1	1	...	...	...	...	...	...	...
Genu valgum	4	...	2	...	1	...	...	...	1
Talipes varus	1	...	...	...	...	...	...	...	1
„ equino-varus	7	5	1	...	...	...	...	1	...
„ equinus	1	...	...	1	...	...	...	...	...
Pes planus	9	6	1	...	...	...	...	1	1
Hammer-toe	1	1	...	...	...	...	...	...	...
Hallux valgus	1	...	1	...	...	...	...	...	...
Double little toe	1	...	1	...	...	...	...	...	...
Congenital hypertrophy of toes	1	...	1	...	...	...	...	...	...
Webbed-fingers	1	1	...	...	...	...	...	...	...
Contracted arm after burn	1	1	...	...	...	...	...	...	...
„ elbow after burn	1	...	1	...	...	...	...	...	...
Old dislocation of radius	1	1	...	...	...	...	...	...	...
Flail leg after removal of portion of tibia	1	1	...	...	...	...	...	...	...
DISEASES OF THE NERVOUS SYSTEM:									
Vertigo (old cases of fractured skull)	2	2	...	...	...	...	...	...	...
Hysteria	2	...	2	...	...	...	...	...	...
Neuralgia of toe after injury	1	...	1	...	...	...	...	...	...
„ of sacral nerves	1	1	...	...	...	...	...	...	...
Clonic spasms of arm after head injury	1	...	...	1	...	...	...	...	...
Apoplexy	1	...	...	...	...	1	...	...	...
Hydrocephalus	1	...	...	...	...	1	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE EAR:									
Otitis media purulenta	7	2	3	1	...	1	...	...	...
Mastoid abscess	4	4	...	...	...	...	...	...	...
DISEASES OF THE EYE and its Appendages:									
Cataract	14	6	6	...	...	...	...	1	1
Opaque capsule of lens	1	1	...	...	...	...	...	...	...
Wound of cornea	1	1	...	...	...	...	...	...	...
Corneal ulcer	2	1	...	...	...	...	...	1	...
Staphyloma	1	1	...	...	...	...	...	...	...
Iritis	4	3	1	...	...	...	...	...	...
Kerato-iritis	2	2	...	...	...	...	...	...	...
Glaucoma	2	...	2	...	...	...	...	...	...
Shrivelled globe	1	...	1	...	...	...	...	...	...
Panophthalmitis	1	1	...	...	...	...	...	...	...
Strabismus	5	...	5	...	...	...	...	...	...
Ectropion	1	1	...	...	...	...	...	...	...
Congenital ptosis	2	2	...	...	...	...	...	...	...
Cellulitis of eyelid	1	1	...	...	...	...	...	...	...
Occluded nasal duct	1	...	...	...	...	...	...	...	1
DISEASES OF THE NOSE:									
Papilloma	1	1	...	...	...	...	...	...	...
Epistaxis	5	2	3	...	...	...	...	...	...
Deflection of septum	3	2	1	...	...	...	...	...	...
Atrophic rhinitis	1	...	1	...	...	...	...	...	...
DISEASES OF THE CIRCULATORY SYSTEM:									
Phlebitis and thrombosis	6	1	5	...	...	...	...	...	...
Varicose veins	19	11	7	...	...	...	...	...	1
" " hæmorrhage from	5	3	2	...	...	...	...	...	...
Aneurism of popliteal artery	1	1	...	...	...	...	...	...	...
Morbus cordis	2	1	...	...	...	...	1	...	...
DISEASES OF THE LYMPHATIC SYSTEM:									
Lymphangitis	4	3	1	...	...	...	...	...	...
Lymphadenitis	8	5	3	...	...	...	...	...	...
Abscess in or about glands:									
Cervical	52	30	21	...	...	...	...	1	...
Axillary	11	8	2	...	...	...	...	1	...
Inguinal (bubo)	15	11	4	...	...	...	...	...	...
Femoral	7	4	3	...	...	...	...	...	...
Tubercular glands:									
Cervical	20	8	12	...	...	...	...	...	...
Inguinal	2	1	...	...	...	...	...	1	...
Secondary epithelioma of cervical glands	1	...	...	...	...	...	...	1	...
Recurrent carcinoma of axillary glands	2	...	2	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE THYROID GLAND:									
Pulsating bronchocele	1	...	...	...	1	...	...	...	...
DISEASES OF THE RESPIRATORY SYSTEM:									
Chronic empyema	4	...	1	...	...	1	1	1	...
DISEASES OF THE DIGESTIVE SYSTEM:									
Lips:									
Papilloma of lower lip	1	1	...	...	...	...	...	...	...
Epithelioma of lower lip	3	3	...	...	...	...	...	...	...
Gums and Jaws:									
Epithelioma of upper jaw	1	...	...	...	1	...	...	...	...
Recurrent epulis of upper jaw	1	...	1	...	...	...	...	...	...
Fibrous epulis	1	...	1	...	...	...	...	...	...
Ulcerative stomatitis	2	1	1	...	...	...	...	...	...
Tongue:									
Epithelioma	7	5	...	...	...	1	1	...	...
Acute inflammation	1	1	...	...	...	...	...	...	...
Tonsils:									
Acute inflammation	1	...	1	...	...	...	...	...	...
Acute abscess	2	1	1	...	...	...	...	...	...
Hypertrophy	3	...	3	...	...	...	...	...	...
Pharynx:									
Adenoids of naso-pharynx	18	10	8	...	...	...	...	...	...
Syphilitic ulceration	1	...	1	...	...	...	...	...	...
Œsophagus:									
Stricture	1	1	...	...	...	...	...	...	...
Supposed foreign body in	1	...	1	...	...	...	...	...	...
Hysterical dysphagia	1	...	1	...	...	...	...	...	...
Liver:									
Carcinoma (? secondary to colon)	1	...	1	...	...	...	...	...	...
Peritoneum:									
Peritonitis (perforation of duodenal ulcer)	1	...	...	...	...	1	...	...	...
Peritonitis (perforation of vermiform appendix)	1	...	...	...	...	...	1	...	...
Chronic ascites	2	...	...	...	...	1	...	...	1

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE DIGESTIVE SYSTEM—*continued.*									
Intestines:									
Hernia (not strangulated):									
Inguinal	21	13	2	...	...	1	...	5	...
Femoral	2	...	2	...	...	...	...	...	...
Scrotal epiplocele	1	1	...	...	...	...	...	...	...
Hernia (strangulated):									
Inguinal	5	4	...	...	...	1	...	...	...
Femoral	5	...	2	...	...	...	2	...	1
Ventral	3	...	1	...	...	...	2	...	...
Acute intestinal obstruction	1	...	...	...	...	...	1	...	...
Chronic intestinal obstruction	1	...	...	...	...	...	1	...	...
Typhlitis	1	...	...	...	...	...	...	1	...
Carcinoma of colon	1	...	...	...	...	...	1	...	...
Umbilical fæcal fistula	1	...	...	...	...	1	...	...	...
Fæcal fistula (old laparotomy case)	1	...	1	...	...	...	...	...	...
Colic	1	1	...	...	...	...	...	...	...
Constipation	2	...	2	...	...	...	...	...	...
Rectum and Anus:									
Inflammation	1	1	...	...	...	...	...	...	...
Hæmorrhoids	22	18	3	...	...	...	...	1	...
Fissure	2	...	2	...	...	...	...	...	...
Fistula	12	7	5	...	...	...	...	...	...
Ischio-rectal abscess	6	3	2	...	...	...	...	1	...
Polypus	2	1	1	...	...	...	...	...	...
Condylomata	1	...	1	...	...	...	...	...	...
Columnar epithelioma	3	1	...	1	1	...	...	...	...
Prolapsus	1	1	...	...	...	...	...	...	...
Syphilitic stricture of rectum	2	...	...	...	...	...	...	...	2
Syphilitic ulceration of rectum	1	...	1	...	...	...	...	...	...
DISEASES OF THE URINARY SYSTEM:									
Kidney:									
Calculus	2	...	2	...	...	...	...	...	...
Surgical kidney	1	...	...	...	...	1	...	...	...
Movable "	1	...	...	...	...	...	1	...	...
Bladder:									
Cystitis	5	2	1	...	...	...	...	2	...
Calculus	5	3	...	...	...	...	...	2	...
Hæmaturia (? cause)	2	2	...	...	...	...	...	...	...
Prostate:									
Enlarged	3	1	...	...	...	2	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE URINARY SYSTEM—*continued.*									
Urethra:									
Perineal urinary abscess ...	3	3	...	...	...	...	...	...	...
„ „ fistula ...	1	1	...	...	...	...	...	...	...
Stricture, gonorrhœal	14	11	...	...	...	...	...	3	...
„ traumatic.....	4	3	1	...	...	...	...	...	...
Extravasion of urine (stricture).....	4	1	...	...	...	3	...	...	...
Retention of urine (stricture).....	5	4	...	...	...	1	...	...	...
Hæmorrhage from urethra..	1	1	...	...	...	...	...	...	...
DISEASES OF THE MALE GENERATIVE ORGANS:									
Penis:									
Gonorrhœal warts.....	1	1	...	...	...	...	...	...	...
Phimosis, congenital.....	13	13	...	...	...	...	...	...	...
„ acquired	6	6	...	...	...	...	...	...	...
Paraphimosis	7	7	...	...	...	...	...	...	...
Cord:									
Varicocele	11	10	...	...	...	...	...	1	...
Encysted hydrocele	1	1	...	...	...	...	...	...	...
Tunica vaginalis:									
Hydrocele	3	3	...	...	...	...	...	...	...
Testis:									
Tubercular	2	2	...	...	...	...	...	...	...
Gummatous	1	1	...	...	...	...	...	...	...
Epididymitis, gonorrhœal..	5	5	...	...	...	...	...	...	...
„ traumatic ...	1	1	...	...	...	...	...	...	...
DISEASES OF THE FEMALE GENERATIVE ORGANS:									
Vulva:									
Labial abscess	2	...	2	...	...	...	...	...	...
Vagina:									
Vaginitis.....	1	...	1	...	...	...	...	...	...
Uterus and appendages:									
Ovarian cyst	3	...	3	...	...	...	...	...	...
Breast:									
Acute abscess.....	11	...	9	...	...	...	...	...	2
„ mastitis	1	...	1	...	...	...	...	...	...
Chronic mastitis	1	...	1	...	...	...	...	...	...
Adeno-fibroma	2	...	1	...	...	...	...	...	1
Scirrhus:									
I. Primary.....	9	...	8	...	...	...	1	...	...
II. Recurrent.....	2	...	2	...	...	...	...	...	...
Tubercular tumour of male breast.....	1	1	...	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF BONES:									
Ostitis and periostitis:									
Of humerus	2	1	1	...	...	...	...	...	...
Of ulna	1	...	...	...	...	...	...	...	1
Of tibia	3	2	1	...	...	...	...	...	...
Of 1st metatarsal phalanx	1	1	...	...	...	...	...	...	...
Diffuse infective periostitis:									
Of femur	1	...	...	...	...	...	...	1	...
Of tibia	1	...	...	...	...	1	...	...	...
Acute epiphysitis	1	...	...	...	...	...	...	1	...
Necrosis:									
Of skull	1	...	1	...	...	...	...	...	...
Of superior maxilla	5	2	3	...	...	...	...	...	...
Of inferior maxilla	4	3	1	...	...	...	...	...	...
Of metacarpal bone	1	1	...	...	...	...	...	...	...
Of phalanx	9	5	4	...	...	...	...	...	...
Of femur	1	1	...	...	...	...	...	...	...
Of tibia	1	...	...	...	...	...	...	...	1
Of metatarsus	1	...	1	...	...	...	...	...	...
Of olecranon process	2	1	...	...	...	...	1	...	...
Tubercular caries:									
Of spine	8	5	2	...	...	1	...	...	...
Of sternum	2	1	1	...	...	...	...	...	...
Of tibia	2	...	2	...	...	...	...	...	...
Of tarsus	4	4	...	...	...	...	...	...	...
Of metatarsus	1	1	...	...	...	...	...	...	...
Of phalanx	1	1	...	...	...	...	...	...	...
Exostosis	5	5	...	...	...	...	...	...	...
Epithelioma involving lower jaw	1	...	...	1	...	...	...	...	...
DISEASES OF STUMPS:									
Caries of humerus	1	1	...	...	...	...	...	...	...
Necrosis of 1st metatarsal bone	1	...	...	...	...	...	...	1	...
DISEASES OF JOINTS:									
Synovitis:									
I. Acute and sub-acute:									
Of knee	37	23	13	...	...	...	...	1	...
Of elbow	2	2	...	...	...	...	...	...	...
Of ankle	6	5	1	...	...	...	...	...	...
II. Chronic:									
Of knee	8	4	4	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF JOINTS—*continued.*									
Arthritis:									
I. Acute:									
Of shoulder	2	1	...	...	...	...	...	1	...
Of knee	3	1	2	...	...	...	...	...	...
Of 1st metacarpo-phalangeal joint	1	1	...	...	...	...	...	...	...
II. Chronic (Tubercular):									
Of hip	20	11	5	...	...	1	...	1	2
Of knee	10	6	2	...	...	...	...	2	...
Of elbow	2	...	1	...	...	...	...	...	1
Of shoulder	1	...	1	...	...	...	...	...	...
Of ankle	2	...	2	...	...	...	...	...	...
Ankylosis:									
Fibrous:									
Of shoulder	2	1	1	...	...	...	...	...	...
Of knee (in faulty position)	3	...	3	...	...	...	...	...	...
Of hip (in faulty position)	1	...	...	...	...	...	...	...	1
Loose body in knee joint	2	2	...	...	...	...	...	...	...
" in metacarpo-phalangeal joint	2	1	1	...	...	...	...	...	...
DISEASES OF MUSCLES, TENDON SHEATHS, AND FASCIÆ:									
Lateral curvature of spine	6	...	6	...	...	...	...	...	...
Ganglion back of wrist	2	...	2	...	...	...	...	...	...
DISEASES OF BURSÆ:									
I. Acute and sub-acute inflammation:									
Prepatellar	4	1	2	...	...	...	...	...	1
Bunion	1	1	...	...	...	...	...	...	...
II. (*a*) Chronic solid enlargement:									
Prepatellar	3	...	3	...	...	...	...	...	...
Multiple	1	1	...	...	...	...	...	...	...
Infrapatellar	1	...	1	...	...	...	...	...	...
(*b*) Chronic fluid enlargement:									
Prepatellar	5	...	5	...	...	...	...	...	...
Olecranon	1	1	...	...	...	...	...	...	...
Over trochantor major	1	1	...	...	...	...	...	...	...
III. Suppuration:									
Prepatellar	3	1	2	...	...	...	...	...	...
Hæmorrhage into prepatellar bursa	1	...	1	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES:									
Lupus	12	2	9	...	...	...	...	...	1
Nævus	1	...	1	...	...	...	...	...	...
Rodent ulcer	1	1	...	...	...	...	...	...	...
Eczema	3	2	1	...	...	...	...	...	...
Psoriasis	1	1	...	...	...	...	...	...	...
Onychia	1	...	1	...	...	...	...	...	...
Impetigo contagiosa	1	...	1	...	...	...	...	...	...
Furunculus	2	2	...	...	...	...	...	...	...
Painful cicatrix of heel	1	1	...	...	...	...	...	...	...
Ingrowing toe-nail	5	2	3	...	...	...	...	...	...
Œdema of leg	1	1	...	...	...	...	...	...	...
Chronic solid œdema of legs	1	...	1	...	...	...	...	...	...
Hæmatoma of thigh	2	2	...	...	...	...	...	...	...
,, of buttock	1	...	1	...	...	...	...	...	...
Fibro-sarcoma of scalp	1	...	1	...	...	...	...	...	...
Fibro-lipoma of buttock	1	...	...	...	...	...	...	...	1
Fibroma of buttock	1	...	1	...	...	...	...	...	...
Lipoma of thigh	1	...	1	...	...	...	...	...	...
Of shoulder	2	1	1	...	...	...	...	...	...
Of back	1	1	...	...	...	...	...	...	...
Of side	1	1	...	...	...	...	...	...	...
Sarcoma of skin of abdomen	1	1	...	...	...	...	...	...	...
Vascular tumour of scalp	1	...	1	...	...	...	...	...	...
Gangrene:									
Senile:									
Of feet	1	...	...	...	1	...	...	...	...
Of foot and leg	1	...	...	...	...	1	...	...	...
Diabetic:									
Of big toe	1	...	...	...	...	...	...	1	...
Raynaud's:									
Of feet	1	...	1	...	...	...	...	...	...
Carbuncle:									
Of wrist	1	1	...	...	...	...	...	...	...
Of back of neck	2	1	1	...	...	...	...	...	...
Of buttock	1	...	...	...	...	...	...	1	...
Of thigh	1	1	...	...	...	...	...	...	...
Abscess:									
1. Acute:									
Alveolar	5	4	1	...	...	...	...	...	...
Labial	1	...	1	...	...	...	...	...	...
Perineal	1	1	...	...	...	...	...	...	...
Of scalp	4	2	2	...	...	...	...	...	...
Of forehead	1	1	...	...	...	...	...	...	...
Of chest wall	2	2	...	...	...	...	...	...	...
Of neck	1	...	1	...	...	...	...	...	...
Of arm	4	3	1	...	...	...	...	...	..

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES—*continued.*									
Abscess—*continued.*									
I. Acute:									
Of hand	10	6	4	...	...	...	...	...	...
Of buttock	3	2	...	...	...	...	...	...	1
Of thigh	5	2	3	...	...	...	...	...	...
Of leg	3	2	...	...	...	...	...	...	1
Of foot	3	1	2	...	...	...	...	...	...
Of back	1	...	...	...	...	...	...	1	...
Whitlow	26	15	7	...	...	...	...	2	2
II. Chronic:									
Of face	2	2	...	...	...	...	...	...	...
Of chest wall	5	3	2	...	...	...	...	...	...
Of abdominal wall	1	1	...	...	...	...	...	...	...
Of arm	4	1	3	...	...	...	...	...	...
Of thigh	7	6	...	...	...	...	...	1	...
Of foot	3	2	1	...	...	...	...	...	...
Multiple	2	1	1	...	...	...	...	...	...
Lumbar	5	1	4	...	...	...	...	...	...
Psoas	4	1	3	...	...	...	...	...	...
Iliac	2	1	1	...	...	...	...	...	...
Of back	1	...	...	...	...	...	...	1	...
Cellulitis:									
Of upper extremity with suppuration	18	13	5	...	...	...	...	...	...
Of upper extremity without suppuration	8	6	2	...	...	...	...	...	...
Diffuse of upper extremity	2	...	1	...	...	1	...	...	...
Of lower extremity with suppuration	4	3	...	...	...	...	1	...	...
Of lower extremity without suppuration	4	2	1	...	...	...	...	1	...
Diffuse of lower limb	1	...	...	...	...	1	...	...	...
Of scalp	2	1	1	...	...	...	...	...	...
Of face	1	...	1	..	...	...	...	...	...
Of neck	6	2	4	...	...	...	...	...	...
Of abdominal wall	1	1	...	...	...	...	...	...	...
Ischio-rectal	1	1	...	...	...	...	...	...	...
Frost-bite of foot	2	1	...	...	...	...	...	1	...
Sinus:									
Submaxillary	1	1	...	...	...	...	...	...	...
In hand	1	1	...	...	...	...	...	...	...
In thigh	5	5	...	...	...	...	...	...	...
In loin (communicating with posterior mediastinum)	2	...	1	...	...	...	...	...	1
In loin (after nephro-lithotomy)	1	1	...	...	...	...	...	...	...
In back	1	...	...	...	...	...	...	...	1

TABLE I.—*continued.*

INJURIES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES—*continued.*									
Ulcer:									
I. Simple:									
Of umbilicus	1	1	...	...	...	...	...	...	...
Of groin	1	1	...	...	...	...	...	...	...
Of leg	1	...	1	...	...	...	...	...	...
Of foot	3	...	3	...	...	...	...	...	...
II. Varicose:									
Of leg	7	...	6	...	...	...	...	1	...
III. Tubercular:									
Mastoid	1	1	...	...	...	...	...	...	...
Of arm	1	...	1	...	...	...	...	...	...
Of leg	1	...	...	...	...	...	...	1	...
Of foot	2	1	1	...	...	...	...	...	...
IV. Traumatic:									
Of leg	2	2	...	...	...	...	...	...	...
V. Syphilitic:									
Multiple	1	1	...	...	...	...	...	...	...
Of arm	1	...	1	...	...	...	...	...	...
Of leg	5	...	4	...	...	...	...	...	1
Phagedena of groin	1	...	...	...	...	...	...	1	...
Cysts:									
I. Dermoid:									
Of scalp	1	1	...	...	...	...	...	...	...
II. Sebaceous:									
Of scalp	4	2	2	...	...	...	...	...	...
Of neck	1	1	...	...	...	...	...	...	...
Of side	1	1	...	...	...	...	...	...	...
Of buttock	1	...	1	...	...	...	...	...	...
III. Serous:									
Of back of neck	1	1	...	...	...	...	...	...	...
INJURIES:									
Burns:									
I. Extensive	1	...	...	...	...	1	...	...	...
II. Local	14	5	7	...	...	...	...	1	1
Scalds:									
Local	16	6	9	...	...	...	...	1	...
Immersion (attempted suicide)	3	1	2	...	...	...	...	...	...
Poisoning by laudanum (suicidal)	1	...	1	...	...	...	...	...	...
Injuries of the head:									
Contusions	2	1	1	...	...	...	...	...	...
Scalp wound	26	19	7	...	...	...	...	...	...

TABLE I.—*continued.*

INJURIES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
INJURIES—*continued.*									
Injuries of the head—continued.									
Concussion of brain	32	16	13	...	...	...	...	2	1
Lacerated wound of soft palate	1	1	...	...	...	...	...	...	...
Compound depressed fracture of vertex	1	1	...	...	...	...	...	...	...
Fractured base	6	2	1	...	...	...	2	1	...
Injuries of the face:									
Contusions	4	3	1	...	...	...	...	...	...
Wounds:									
Contused	3	2	1	...	...	...	...	...	...
Lacerated	3	2	1	...	...	...	...	...	...
Incised	1	1	...	...	...	...	...	...	...
Fracture:									
Of upper jaw	1	...	1	...	...	...	...	...	...
Of lower jaw	3	3	...	...	...	...	...	...	...
Of nasal bones	2	...	2	...	...	...	...	...	...
Injuries of the neck:									
Cut throat (suicidal)	1	...	...	...	...	1	...	...	...
Injuries of the back:									
Sprain	1	1	...	...	...	...	...	...	...
Contusions	8	6	2	...	...	...	...	...	...
Concussion of spinal cord	1	1	...	...	...	...	...	...	...
? Dislocation of coccyx	1	1	...	...	...	...	...	...	...
Injuries of the chest:									
Contusions	2	1	1	...	...	...	...	...	...
Fractured ribs	7	5	1	...	...	1	...	...	...
Bullet wound	1	1	...	...	...	...	...	...	...
Injuries of the abdomen:									
Contusions	9	6	3	...	...	...	...	...	...
? Ruptured liver	2	1	1	...	...	...	...	...	...
Injuries of the upper extremity:									
Contusions	2	2	...	...	...	...	...	...	...
Wounds:									
Contused	1	...	1	...	...	...	...	...	...
Incised	7	3	4	...	...	...	...	...	...
Lacerated	5	5	...	...	...	...	...	...	...
Crushed hand	2	2	...	...	...	...	...	...	...
„ fingers	2	2	...	...	...	...	...	...	...
Fractures (Simple):									
Clavicle	3	1	2	...	...	...	...	...	...
Humerus	10	4	4	...	...	1	...	...	1
Radius and ulna	1	1	...	...	...	...	...	...	...
Radius (Colles')	2	1	1	...	...	...	...	...	...
Ulna	1	1	...	...	...	...	...	...	...
Phalanx	1	...	1	...	...	...	...	...	...

TABLE I.—*continued.*

INJURIES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1892.	
		M.	F.	M.	F.	M.	F.	M.	F.
INJURIES—*continued.*									
Injuries of the upper extremity —continued.									
Fractures (Compound):									
Radius (Colles')	1	...	...	...	...	...	...	...	1
„ and ulna	1	1	...	...	...	...	...	...	...
Olecranon process	1	1	...	...	...	...	...	...	...
Needle in arm	1	...	1	...	...	...	...	...	...
„ hand	1	...	1	...	...	...	...	...	...
Foreign body in hand	1	1	...	...	...	...	...	...	...
Injuries of the lower extremity:									
Contusions	18	12	6	...	...	...	...	...	...
Wounds:									
Contused	2	2	...	...	...	...	...	...	...
Punctured (1 bullet wound)	3	2	1	...	...	...	...	...	...
Lacerated	3	2	...	...	...	...	1	...	...
Crushed toes	5	3	...	...	...	1	...	1	...
Fractures:									
Simple:									
Femur	18	13	3	...	...	...	...	1	1
Tibia	12	8	4	...	...	...	...	...	...
Fibula	7	6	1	...	...	...	...	...	...
Tibia and fibula	18	11	5	...	...	...	...	2	...
Pott's	2	2	...	...	...	...	...	...	...
Patella	7	5	2	...	...	...	...	...	...
Compound:									
Tibia	1	...	1	...	...	...	...	...	...
Tibia and fibula	1	1	...	...	...	...	...	...	...
Phalanx	1	1	...	...	...	...	...	...	...
Dislocations:									
Shoulder	4	2	2	...	...	...	...	...	...
Elbow	1	1	...	...	...	...	...	...	...
Thumb (compound)	1	1	...	...	...	...	...	...	...
Hip (dorsal)	1	1	...	...	...	...	...	...	...
Sprains:									
Knee	1	...	1	...	...	...	...	...	...
Ankle	25	18	6	...	...	...	...	1	...
UNCLASSIFIED:									
Donkey bite	1	...	1	...	...	...	...	...	...
Swallowed a nail	1	...	1	...	...	...	...	...	...
Lacerated wound of scrotum	1	1	...	...	...	...	...	...	...
"Run over"—(no definite injury)	7	4	3	...	...	...	...	...	...
"Fall"—nil	1	...	1	...	...	...	...	...	...

TABLE II.—*Operations.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1892.		Remarks.
		M.	F.	M.	F.	M.	F.	
HEAD AND NECK:								
For depressed fracture of skull	1	1	...	...	...	...	...	Trephining and elevating.
„ epithelioma of lower lip	3	3	...	...	...	...	...	Excision of growth.
„ papilloma of lower lip	1	1	...	...	...	...	...	Excision of growth.
„ epithelioma of tongue	5	3	...	1	1	...	...	3 excision of half. 1 Kocher's operation. 1 ligature of both lingual arteries. 1 death from pneumonia on 10th day, and 1 from bronchitis in 27 hours (after Kocher's).
„ epulis of lower jaw	1	...	1	...	...	...	...	Excision with portion of alveolar border of jaw.
„ recurrent epulis of upper jaw	1	...	1	...	...	...	...	Excision and gouging alveolar border.
„ harelip	2	2	...	...	...	...	...	Paring and suturing.
„ cleft soft palate	1	1	...	...	...	...	...	„ „
„ adenoids of naso-pharynx	13	8	5	...	...	...	...	Forceps and curette.
„ sebaceous cyst of scalp	2	1	1	...	...	...	...	Excision.
„ „ „ forehead	1	1	...	...	...	...	...	„
„ „ „ neck	1	1	...	...	...	...	...	„
„ dermoid cyst	1	1	...	...	...	...	...	„
„ vascular tumour of scalp	1	...	1	...	...	...	...	„
„ fibro-sarcoma of scalp	1	...	1	...	...	...	...	„
„ rodent ulcer of face	1	1	...	...	...	...	...	„
„ necrosis of superior maxilla	2	...	2	...	...	...	...	Sequestrotomy.
„ tubercular glands	12	5	7	...	...	...	...	Excision or scraping.
Trephining skull	1	1	...	...	...	...	...	For clonic spasms of arm after old head injury. The triphine was applied at site of scar and was anterior to the motor area. The bone was found thickened and sclerosed. No relief followed.
EYES:								
For cataract	12	6	6	...	...	...	...	Extraction of lens. 2 needled and 1 (lamellar), iredectomy both.
„ opaque lens capsule	1	1	...	...	...	...	...	Needled.
„ strabismus	5	...	5	...	...	...	...	Division of rectus.
„ iritis	2	2	...	...	...	...	...	Iredectomy.
„ glaucoma	2	...	2	...	...	...	...	„
„ congenital ptosis	2	2	...	...	...	...	...	Elliptical piece of skin of upper lid removed.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1892.		Remarks.
		M.	F.	M.	F.	M.	F.	
EYES—*continued.*								
For shrivelled globe	1	...	1	...	...	...	...	Removal of globe.
„ panophthalmitis after cataract operation	1	1	...	...	...	...	...	„ „
„ staphyloma	1	1	...	...	...	...	...	„ „
THORACIC REGION:								
For chronic empyema	1	...	...	1	...	...	...	Excision of portion of 3 ribs, similar operation previously. Death from pyæmic cerebral abscess.
„ caries of sternum	1	1	...	...	...	...	...	Scraped.
„ recurrent carcinoma of axillary glands	1	...	1	...	...	...	...	Excision, cautery and chloride of zinc paste.
„ sarcoma of back (recurrent)	1	1	...	...	...	...	...	Excision.
„ lipoma of back	1	1	...	...	...	...	...	„
„ „ side	1	1	...	...	...	...	...	„
„ sebaceous cyst	1	1	...	...	...	...	...	„
BREAST:								
For scirrhus, primary	8	...	7	1	...	...	...	Amputation of breast. 1 death from dissemination.
„ „ recurrent	2	...	1	...	1	...	...	Excision of growth. 1 death from relapsing erysipelas.
„ acute abscess	1	...	1	...	...	...	...	Amputation of breast.
„ fibro-adenoma	1	...	1	...	...	...	...	Excision of growth.
„ tuberculous tumour of male breast	1	1	...	...	...	...	...	„ „
ABDOMINAL REGION:								
For strangulated femoral hernia	4	...	2	...	2	...	...	Herniotomy. 1 death on 10th day from peritonitis. Patient had chronic bronchitis and Bright's disease. 1 death on following day. In this case the gut, which was gangrenous, was incised and sutured to the wound. the constriction not being divided.
„ strangulated umbilical hernia	2	...	...	...	2	...	...	Herniotomy. 1 death in 14 hours from collapse. Contents of sac omentum with small knuckle of intestine. Stricture divided and intestine returned. 1 death in a few hours. No P.M. Gut was gangrenous and freely incised. Operation without anæsthetic. Vomiting did not cease.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1892.		Remarks.
		M.	F.	M.	F.	M.	F.	
ABDOMINAL REGION—*cont.*								
For strangulated inguinal hernia	4	4	...	...	...	...	...	Herniotomy.
„ inguinal hernia with suppuration of sac	1	1	...	...	...	...	...	Herniotomy. Incarcerated hernia.
„ inguinal hernia	8	7	1	...	...	...	...	Radical cure. 1 death (child) on 3rd day from rupture of œsophagus.
„ scrotal epiplocele	1	1	...	...	...	...	...	Radical cure with excision of herniated omentum.
„ acute intestinal obstruction	1	...	...	...	1	...	...	Laparotomy soon after admission. Portion of ileum was found herniated under an omental band attached to uterus. Death same day.
„ chronic intestinal obstruction	1	...	...	...	1	...	...	Transferred from medical ward for operation —lumbar colotomy. Death in 3 days from septic poisoning and exhaustion. P.M., inflammatory stricture of colon.
„ chronic ascitis	1	...	...	1	...	...	...	Incision and drainage. Death from exhaustion. P.M., retroperitoneal carcinoma and chronic peritonitis.
„ psoas abscess	2	...	2	...	...	...	...	Opening from loin and draining.
„ chronic ulceration of umbilicus	1	1	...	...	...	...	...	Excision of hypertrophied umbilicus.
„ sarcoma of skin	1	1	...	...	...	...	...	Excision.
ABOUT RECTUM AND ANUS:								
For hæmorrhoids	18	16	2	...	...	...	...	Clamp and cautery or ligature. 1 Whitehead's.
„ fistula	11	7	4	...	...	...	...	Division.
„ fissure	1	...	1	...	...	...	...	Excision.
„ polypus	2	1	1	...	...	...	...	Abscission.
„ carcinoma	1	1	...	...	...	...	...	Inguinal colotomy.
ON THE GENITO-URINARY ORGANS:								
For phimosis	19	19	...	...	...	...	...	Circumcision.
„ paraphimosis	7	7	...	...	...	...	...	3 circumcision.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1892.		Remarks.
		M.	F.	M.	F.	M.	F.	
ON THE GENITO-URINARY ORGANS—*continued.*								
For urethral stricture	2	2	...	...	...	...	...	Rapid dilatation.
„ enlarged prostate	1	...	...	1	...	...	...	Suprapubic exploration. Death on 5th day from peritonitis. P.M., peritoneum found to have been wounded.
„ vesical calculus	3	3	...	...	...	...	...	2 lateral lithotomy. 1 suprapubic lithotomy.
„ encysted hydrocele of cord	1	1	...	...	...	...	...	Excision.
„ varicocele	10	10	...	...	...	...	...	Excision of veins.
„ tubercular testis	2	2	...	...	...	...	...	Castration.
„ renal calculus	2	...	2	...	...	...	...	Nephro-lithotomy.
„ movable kidney	1	...	...	...	1	...	...	Fixing to loin. P.M., small sarcomatous nodule in kidney. Small nodules in other organs. Primary growth in postior mediastiuum.
„ ovarian cyst	3	...	3	...	...	...	...	Ovariotomy (*see* report for "Arden Ward").
ON UPPER LIMB:								
For webbed finger	1	1	...	...	...	...	...	Division of web.
„ ganglion back of wrist	1	...	1	...	...	...	...	Dissected out.
„ necrosis of olecranon process	1	1	...	...	...	...	...	Sequestrotomy.
„ old dislocation of radius	1	1	...	...	...	...	...	Excision of head.
„ tubercular disease of elbow	1	...	1	...	...	...	...	Excision of joint.
„ chronic arthritis of shoulder	1	...	1	...	...	...	...	Opening abscess and scraping.
„ fibrous ankylosis of shoulder	1	...	1	...	...	...	...	Breaking down adhesions.
„ lipoma of shoulder	2	1	1	...	...	...	...	Excision of growth.
ON LOWER LIMB:—								
For morbus coxæ	2	2	...	...	...	...	...	1 opening abscess and scraping. 1 excision of joint.
„ tubercular disease of knee	2	2	...	...	...	...	...	1 excision of joint. 1 arthrectomy.
„ septic arthritis of knee	1	...	1	...	...	...	...	Opened and drained.
„ chronic synovitis of knee	2	1	1	...	...	...	...	1 evacuation of thick fluid by incision. 1 trephining head of tibia.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1892.		Remarks.
		M.	F.	M.	F.	M.	F.	
ON LOWER LIMB—*cont.*								
For exostosis of femur	1	1	...	...	...	...	...	Removal.
„ „ of tibia.....	1	1	...	...	...	...	...	„
„ „ of os calcis ...	1	1	...	...	...	...	...	„
„ necrosis of femur.....	1	1	...	...	...	...	...	Sequestrotomy.
„ ostitis of head of tibia..	2	2	...	...	...	...	...	Trephining.
„ tubercular caries of tibia	2	...	2	...	...	...	...	Gouging and scraping.
„ tubercular disease of tarsus	2	2	...	...	...	...	...	Sequestrotomy and gouging.
„ talipes equino-varus ...	3	3	...	...	...	...	...	2 wedge-shaped tarsectomy. 1 division of tendo Achillis.
„ „ equinus	1	1	...	...	...	...	...	Division of tendo Achillis.
„ hallux valgus	1	...	1	...	...	...	...	The projecting bone removed.
„ pes planus	6	6	...	...	...	...	...	"Firing."
„ genu valgum	3	1	2	...	...	...	...	2 MacEwen's osteotomy of femur (1 single, 1 double). 1 removal of wedge of tibia.
„ varicose veins	12	8	4	...	...	...	...	6 excision of portion of veins. 5 acu-pressure. 1 ligature.
„ lipoma of thigh	1	...	1	...	...	...	...	Excision.
„ chronic abscess of thigh	1	1	...	...	...	...	...	Opened and scraped.
„ popliteal aneurism	1	1	...	...	...	...	...	The direct operation on the sac.
„ chronic solid enlargement of patellar bursa	5	...	5	...	...	...	...	4 dissected out. 1 opened and scraped.
„ chronic solid enlargement of infra-patellar bursa	1	...	1	...	...	...	...	Dissected out.
„ chronic solid enlargement of ischial bursæ	1	1	...	...	...	...	...	Both dissected out.
„ chronic fluid enlargement of patellar bursa.....	2	...	2	...	...	...	...	1 wall dissected out. 1 opened and scraped.
„ sebaceous cyst of buttock	1	...	1	...	...	...	...	Excision.
„ painful cicatrix of heel..	1	1	...	...	...	...	...	„
„ neuralgia of sacral nerves	1	1	...	...	...	...	...	Stretching sciatic nerve.
UNCLASSIFIED:								
For spinal caries and abscess	2	1	...	1	...	...	...	1 sequestrotomy. 1 excision of portion of rib. Death from exhaustion.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		In hosp., 31st Dec., 1892.		Remarks.
		M.	F.	M.	F.	M.	F.	
AMPUTATIONS:								
Of fingers	10	6	4	...	...	...	...	Mostly for whitlow and crush.
Of toes	14	8	5	1	...	...	...	1 death from delirium tremens after crush.
Of arm	1	...	1	...	...	...	...	For diffuse cellulitis after wound of hand.
Of forearm	1	1	...	...	...	...	...	For necrosis of carpus after cellulitis.
At shoulder joint	1	1	...	...	...	...	...	For caries of humerus. Arm previously removed at middle.
At hip joint	1	...	...	1	...	...	...	Male, æt. 27. Joint previously excised. Death from shock next day.
Of thigh	3	1	2	...	...	...	...	2 for acute arthritis of knee (1 traumatic). 1 for extensive lupus of leg.
Of foot	4	1	3	...	...	...	...	1 Chopart's for congenital hypertrophy of toes. 1 Pirogoff's for paralytic equino-varus. 2 Syme's (1 for tubercular disease of tarsus, 1 for Raynaud's gangrene).

TABLE III.—*Cases of Infectious Disease during the Year* 1892.

Sex.	Age.	Date of Admission.	Disease for which Admitted.	Hospital Disease.	Result and Date.
M.	56	December 14, 1891	Scalp wound and fractured humerus.	Tetanus	Died January 8.
M.	36	" 31, "	Diffuse cellulitis of arm	Diffuse cellulitis	Died Jannary 2.
M.	2	January 21, 1892	Erysipelas of face	Erysipelas	Recovered February 9.
F.	41	April 5, "	Axillary abscess	Erysipelas	Recovered May 4.
M.	51	June 29, "	Diffuse cellulitis of leg	Diffuse cellulitis	Died July 3.
F.	5 months	" " "	Abscess of thigh	Erysipelas	Recovered July 12.
F.	2½	July 4, "	Scald of face and arm	Scarlet fever	Sent to Fever Hospital.
F.	33	August 1, "	Chronic empyema	Pyæmic cerebral abscesses	Died August 3.
M.	30	" 2, "	Axillary abscess	Pyæmic panophthalmitis	Recovered October 29.
F.	29	" 8, "	Diffuse cellulitis of arm	Pyæmic abscess of leg	Recovered October 5.
F.	65	September 21, "	Recurrent scirrhus of breast	Erysipelas	Died November 5.
M.	23	" 27, "	Infective periostitis of tibia	Pyæmia	Died November 10.
M.	9 months	" " "	Lymphadenitis	Scarlet fever	Sent to Fever Hospital, September 30.
M.	11	November 4, "	Chronic empyema	Pyæmic cerebral abscess	Died December 27.

REPORT OF CASES IN "ARDEN WARD"

(FOR DISEASES OF WOMEN)

DURING THE YEAR 1891.

By J. B. BYLES.

Number of patients under treatment, January 1st		9
" " admitted during 1891		80
Total		89
Number of patients discharged during the year:		
Cured or relieved	67	
Unrelieved	9	
	—	76
*Died		3
Under treatment, December 31st, 1891		10
Total		89

The mortality during the year was 3·37 per cent.

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* 1 General peritonitis (old perimetritis Apostoli treatment).
1 Fibromyoma of uterus (after abdominal section).
1 Pyonephrosis, septicæmia, ulcerative endocarditis.

Cases in "Arden Ward."

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
Uterus:						
Retroflexion	I	S. G.	45	Relief	O. 173	Menorrhagia.
	II	C. D.	43	"	O. 192	Menorrhagia. ? Fibroid.
	III	E. B.	30	"	P. 5	
	IV	M. H.	25	"	P. 38	Adhesion. After miscarriage.
	V	L. M.	29	"	P. 161	Menorrhagia.
	VI	E. C.	20	"	P. 182	Dysmenorrhæa, menorrhagia.
Procidentia	I	M. H.	54	"	P. 70	Replaced. Pessary introduced.
	II	M. J.	63	"	P. 159	Replaced. Pessary introduced.
	III	L. W.	47	"	P. 185	Replaced. Pessary introduced.
	IV	S. W.	65	No relief	P. 232	Sent to Infirmary.
Subinvolution	I	I. D.	36	Relief	O. 203	After abortion.
	II	M. W.	26	"	P. 42	After abortion. Menorrhagia and metrorrhagia.
	III	E. H.	26	"	P. 136	After confinement.
Carcinoma	I	M. S.	42	No relief	P. 171	
Fibroid	I	S. M.	52	Relief	O. 228	Interstitial. A polypus was removed.
	II	E. D.	43	"	O. 250	Interstitial.
	III	M. F.	49	"	O. 254	Interstitial. Electrolysis 19 times. Slight improvement.
	IV	J. H.	45	"	P. 33	Submucous. Electrolysis 10 times.
	V	M. H.	49	Death	P. 81	Subperitoneal. Simulating solid ovarian cyst. Abdominal section. Removal. Death from general peritonitis.
	VI	M. H.	38	No relief	P. 155	Interstitial.
	VII	M. H.	48	"	P. 165	Interstitial. Electrolysis 24 times. No reduction in size.
	VIII	F. B.	41	Relief	P. 187	Interstitial. Electrolysis 5 times.
Fibroid Polypus	I	E. G.	39	Cured	P. 89	Removed by scissors.
	II	E. W.	48	"	P. 150	Removed by ecraseur.
	III	E. R.	46	"	P. 210	Removed by ecraseur.

Cervix Uteri:						
Stenosis	I	S. W.	34	Cured	P. 99	Dysmenorrhœa. Sterility. Os divided by metrotome.
	II	A. H.	25	"	P. 148	Dysmenorrhœa. Sterility. Os divided by probe pointed bistuory.
Endocervicitis	I	R. G.	37	Relief	P. 10	
	II	B. F.	29	"	P. 21	
Malignant Disease	I	M. M.	40	"	O. 186	Epithelioma. Scraped.
	II	L. D.	47	"	P. 153	Rodent ulcer. Scraped and cauterized.
Polypi	I	C. R.	72	Cured	P. 111	Removed by torsion.
	II	E. G.	57	"	P. 113	Removed by torsion. Patient had chronic cystitis.
Ovary:						
Chronic Ovaritis	I	M. C.	23	Relief	O. 237	
Cysts	I	E. B.	34	Cured	P. 119	Papillary cyst. No adhesions. Ovariotomy.
Vagina:						
Cystocele	I	M. W.	65	Relief	O. 233	Ring pessary.
	II	E. P.	52	"	P. 226	Rectocele also. Ring pessary.
Vaginismus	I	M. S.	32	"	P. 18	Married 2 years *sine coitu*. Forcible dilatation.
Vulva:						
Cyst of Bartholin's Gland	I	A. B.	20	Cured	P. 91	Opened. Wound cauterized.
Epithelioma	I	S. B.	53	Relief	P. 115	Freely removed by scalpel.
Induration	I	S. C.	44	No relief	P. 129	? Malignant in character.
Bladder, Urethra:						
Urethritis	I	E. H.	23	Cured	P. 192	

Cases in "Arden Ward"—*continued.*

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
Disorders of Menstruation:						
Menopause	I	S. F.	45	Relief	P. 26	Menorrhagia.
Metrorrhagia	I	A. M.	36	Cured	P. 173	
Disorders during and after Pregnancy:						
Induction of Premature Labour	I	E. H.	35	Relief	O. 198	Contracted pelvis. Labour induced at 8th month.
	II	M. B.	28	Recovery	O. 243	Eclampsia. Labour induced at 8th month.
Abortion	I	A. L.	26	"	O. 220	6 months child. Lived 3 hours.
	II	L. W.	39	"	P. 66	Hæmorrhage. Blighted ovum.
	III	C. F.	31	"	P. 133	4 months child.
	IV	E. P.	41	"	P. 139	6 weeks ovum.
Early Pregnancy	I	J. K.	32	Relief	P. 216	
Retroflexion of Gravid Uterus	I	L. Q.	26	"	P. 46	Replaced. Pessary introduced.
Hydatidiform Mole	I	A. L.	30	Recovery	P. 60	Hæmorrhage. Spontaneous expulsion.
Ruptured Perineum	I	K. W.	26	Unrelieved	P. 73	Mitral disease. No operation.
	II	M. F.	37	Cured	P. 163	Complete. Edges pared and sutured.
Puerperal Septicæmia	I	M. B.	33	"	P. 178	Following abortion.
	II	M. R.	32	"	P. 189	Following confinement.
Secondary Hæmorrhage	I	P. R.	39	Recovery	P. 180	Following abortion.

Pelvis:						
Pelvic Peritonitis	I	M. H.	49	Death	P. 50	Apostoli treatment employed on three occasions. A current of 150 milliampères passed for 7 minutes each time. Death 6 weeks later from general peritonitis.
	II	J. J.	39	Recovery	P. 76	Acute. ? Cause.
	III	A. A.	25	"	P. 145	Acute. Complicated by enteric fever.
	IV	N. E.	21	"	P. 223	Acute. During menstruation.
Pelvic Cellulitis	I	E. P.	24	Relief	O. 214	Acute. After confinement.
	II	E. G.	38	"	P. 1	Chronic.
	III	A. O.	23	"	P. 14	Acute. ? Cause.
	IV	A. A.	42	"	P. 107	Suppuration. Pus discharged at umbilicus.
	V	E. R.	25	"	P. 207	Retroflexion.
Hæmatocele	I	T. T.	27	"	O. 178	After fall.
	II	E. K.	30	"	P. 55	During menstruation.
	III	E. M.	36	"	P. 95	During menstruation.
	IV	A. R.	24	"	P. 168	During menstruation. Complicated by general peritonitis.
	V	E. L.	23	Cured	P. 220	During menstruation.
Unclassified:						
Hysteria	I	C. G.	32	Relief	O. 206	Hystero-epilepsy. Faradism.
Pyonephrosis, Ulcerative Endocarditis	I	A. C.	38	Death	P. 103	Admitted collapsed, and died on 2nd day. P.M. Stone impacted in ureter.
Pyelitis	I	M. P.	37	Relief	P. 196	Patient pregnant.
Anæmia, Debility	I	C. H.	32	"	P. 123	Following abortion and influenza.
Colloid Cancer of Omentum	I	C. S.	55	No relief	P. 157	Exploratory abdominal section.
General Tuberculosis	I	G. J.	25	"	P. 175	Transferred to Dr. Sturges.
Tubercular Peritonitis	I	A. D.	36	"	P. 228	Abdomen opened and drained.

CASES IN "ARDEN WARD"—*continued.*

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
DISORDERS OF MENSTRUATION:						
Menopause	I	S. F.	45	Relief	P. 26	Menorrhagia.
Metrorrhagia	I	A. M.	36	Cured	P. 173	
DISORDERS DURING AND AFTER PREGNANCY:						
Induction of Premature Labour	I	E. H.	35	Relief	O. 198	Contracted pelvis. Labour induced at 8th month.
	II	M. B.	28	Recovery	O. 243	Eclampsia. Labour induced at 8th month.
Abortion	I	A. L.	26	"	O. 220	6 months child. Lived 3 hours.
	II	L. W.	39	"	P. 66	Hæmorrhage. Blighted ovum.
	III	C. F.	31	"	P. 133	4 months child.
	IV	E. P.	41	"	P. 139	6 weeks ovum.
Early Pregnancy	I	J. K.	32	Relief	P. 216	
Retroflexion of Gravid Uterus	I	L. Q.	26	"	P. 46	Replaced. Pessary introduced.
Hydatidiform Mole	I	A. L.	30	Recovery	P. 60	Hæmorrhage. Spontaneous expulsion.
Ruptured Perineum	I	K. W.	26	Unrelieved	P. 73	Mitral disease. No operation.
	II	M. F.	37	Cured	P. 163	Complete. Edges pared and sutured.
Puerperal Septicæmia	I	M. B.	33	"	P. 178	Following abortion.
	II	M. R.	32	"	P. 189	Following confinement.
Secondary Hæmorrhage	I	P. R.	39	Recovery	P. 180	Following abortion.

PELVIS:						
Pelvic Peritonitis	I	M. H.	49	Death	P. 50	Apostoli treatment employed on three occasions. A current of 150 milliampères passed for 7 minutes each time. Death 6 weeks later from general peritonitis.
	II	J. J.	39	Recovery	P. 76	Acute. ? Cause.
	III	A. A.	25	"	P. 145	Acute. Complicated by enteric fever.
	IV	N. E.	21	"	P. 223	Acute. During menstruation.
Pelvic Cellulitis	I	E. P.	24	Relief	O. 214	Acute. After confinement.
	II	E. G.	38	"	P. 1	Chronic.
	III	A. O.	23	"	P. 14	Acute. ? Cause.
	IV	A. A.	42	"	P. 107	Suppuration. Pus discharged at umbilicus.
	V	E. R.	25	"	P. 207	Retroflexion.
Hæmatocele	I	T. T.	27	"	O. 178	After fall.
	II	E. K.	30	"	P. 55	During menstruation.
	III	E. M.	36	"	P. 95	During menstruation.
	IV	A. R.	24	"	P. 168	During menstruation. Complicated by general peritonitis.
	V	E. L.	23	Cured	P. 220	During menstruation.
UNCLASSIFIED:						
Hysteria	I	C. G.	32	Relief	O. 206	Hystero-epilepsy. Faradism.
Pyonephrosis, Ulcerative Endocarditis	I	A. C.	38	Death	P. 103	Admitted collapsed, and died on 2nd day. P.M. Stone impacted in ureter.
Pyelitis	I	M. P.	37	Relief	P. 196	Patient pregnant.
Anæmia, Debility	I	C. H.	32	"	P. 123	Following abortion and influenza.
Colloid Cancer of Omentum	I	C. S.	55	No relief	P. 157	Exploratory abdominal section.
General Tuberculosis	I	G. J.	25	"	P. 175	Transferred to Dr. Sturges.
Tubercular Peritonitis	I	A. D.	36	"	P. 228	Abdomen opened and drained.

REPORT OF CASES IN "ARDEN WARD"

(FOR DISEASES OF WOMEN)

DURING THE YEAR 1892.

G. D. BROWNING, R.O.A.

Number of cases in "Arden" on January 1st, 1892	9
Number of cases in "Arden" on January 1st, 1893	7
Number of cases treated during the year 1892	110

Number of deaths 2*, being 1·9 per cent.

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* 1 from pulmonary embolism from thrombosis of femoral.
1 from ruptured ovarian cyst and peritonitis.

Cases in "Arden Ward."

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
Uterus:						
Fibroid	I	F. B.	41	Relief	P. 187	Interstitial.
	II	A. H.	40	"	Q. 135	Interstitial.
	III	H. J.	37	"	Q. 175	Interstitial.
	IV	M. H.	48	"	P. 165	Interstitial. Electrolysis 28 applications of 10 minutes each.
	V	L. D.	48	"	P. 251	Subperitoneal. Impacted. Raised.
	VI	E. C.	50	"	Q. 139	Subperitoneal.
Fibroid Polypus	I	C. N.	62	Death	Q. 205	Death from pulmonary embolism. From detached clot from saphenous vein.
	II	M. E.	56	"	Q. 265	Death from ruptured ovarian cyst, with peritonitis.
Retroflexion	I	M. H.	30	Relief	Q. 207	Ring pessary.
Retroversion	I	M. G.	36	"	Q. 43	
Acute Inversion on 10th day	I	H. D.	29	Cured	R. 17	Spontaneous reposition.
Cervix:						
Malignant Disease	I	S. S.	49	No relief	P. 255	Carcinoma. Uterus fixed.
	II	M. M.	46	Relief	Q. 57	Uterus fixed. Cautery.
	III	E. F.	65	No relief	Q. 121	Uterus fixed. Cautery.
	IV	C. B.	29	"	Q. 233	Discharged herself.
	V	A. B.	44	Relief	Q. 247	Actual cautery. Uterus fixed.
Rodent Ulcer	I	L. D.	48	"	P. 248	
Polypus	I	E. H.	51	Cured	Q. 155	Mucous. Removed by torsion.
	II	L. D.	30	"	Q. 199	Mucous.
	III	E. H.	32	"	Q. 216	Mucous. Removed by torsion.
	IV	E. M.	45	Relief	Q. 227	Mucous. Removed by torsion.
	V	C. D.	18	Cured	R. 91	Large mushroom-shaped protruding per vulva.

Papilloma	I	A. B.	39	Relief	Q. 46	Scraped.
Supravaginal Hypertrophy	I	M. L.	23	Cured	Q. 73	Cervix amputated with galvano-cautery.
	II	H. G.	35	Relieved	R. 27	Incised with metrotome.
Stenosis	I	A. A.	32	Relief	Q. 237	Dysmenorrhœa. Divided with metrotome.
	II	C. S.	26	Cured	Q. 38	Dysmenorrhœa. Sterility. Relieved by metrotome.
VAGINA:						
Cyst of Anterior Wall	I	E. M.	40	Relief	Q. 26	Seven months pregnant. Punctured.
Cyst of Posterior Vaginal Wall	I	E. K.	48	Cured	Q. 54	Punctured.
Prolapse	I	E. P.	52	Relief	P. 266	Cystocele and rectocele. Ring pessary.
	II	S. V.	47	"	Q. 7	Cystocele and rectocele. Ring pessary.
	III	M. S.	55	"	Q. 241	Rectocele. Chronic renal. Ring pessary.
Procidentia	I	S. W.	65	No relief	P. 232	Chronic bronchitis. Prolapsed rectum.
	II	C. B.	48	Relief	Q. 125	Ring pessary.
	III	M. B.	66	"	R. 31	44 years. Relieved by alum plugs.
Ruptured Perinæum	I	E. W.	46	No relief	Q. 60	Silk stitches sloughed out.
	II	C. F.	47	Cured	Q. 191	Repaired silver stitches.
	III	K. C.	49	"	Q. 212	Repaired silver stitches.
	IV	A. H.	22	"	Q. 222	Repaired silver stitches.
VULVA:						
Fibroid Growth	I	H. P.	50	"	Q. 23	Removed by galvano-cautery.
Wart ? Malignant		M. R.	75	Relief	Q. 214	Excised.
Hæmatoma of Right Labium	I	B. C.	26	Cured	Q. 107	Kick on vulva.
Labial Abscess	I	S. C.	32	Relief	Q. 64	Burst spontaneously.
	II	E. W.	52	"	Q. 131	Sinus scraped.

CASES IN "ARDEN WARD"—*continued.*

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
VULVA—*continued:*						
Lupus Vulvæ	I	E. J.	15	Relief	Q. 189	Chromic acid applied.
	II	C. W.	31	"	Q. 195	Chromic acid applied.
Malignant Disease	I	R. D.	48	"	R. 32	Actual cautery.
Vaginismus	I	E. C.	27	"	R. 87	M. 4 years.
URETHRA:						
Caruncle	I	H. B.	65	"	Q. 173	Excised. Chromic acid applied.
	II	M. E.	27	"	Q. 201	Galvano-cautery.
	III	L. J.	48		R. 13	
	IV	J. N.	50	No relief	R. 1	Non compos mentis.
OVARY:						
Chronic Ovaritis	I	E. S.	17	Relief	P. 245	Syphlitis.
	II	J. K.	26	"	Q. 3	Left side.
	III	K. B.	17	"	Q. 228	
	IV	M. S.	44	"	R. 43	Prolapsed in Douglas pouch.
TUMOURS:						
Cystic	I	M. B.	53	Cured	P. 240	Right side. Ovariotomy. Papillomatous. No adhesions.
	II	S. B.	38	"	Q. 17	Left side. Ovariotomy. Recent adhesions. Multilocular.
	III	M. D.	42	"	Q. 111	Ovariotomy. No adhesions. Multilocular.
	IV	L. A.	42	"	Q. 143	Ovariotomy. Multilocular. No adhesions.
	V	E. C.	23	"	Q. 151	Ovariotomy. No adhesions. Multilocular.
	VI	A. Y.	23	"	Q. 159	Ovariotomy. Both ovaries removed, being cystic.
	VII	A. P.	25	"	Q. 229	Ovariotomy. No adhesions. Dermoid.
	VIII	M. E.	56	Death	Q. 265	Cyst ruptured spontaneously before admission. 9 pints of colloid matter diffused into peritoneal cavity.
Dermoid Prolapsed in Douglas Pouch	I	L. H.	25	Relief	R. 71	Bound down by adhesions.

Pelvis:						
Hæmatocele		E. L.	23	Cured	P. 220	Cold during menstruation.
Perimetritis	I	A. A.	25	Relief	P. 145	Typhoid fever.
	II	E. R.	25	"	P. 207	Child-birth.
	III	N. E.	21	"	P. 223	Cold during menstruation.
	IV	E. E.	40	"	Q. 103	Cold.
	V	E. P.	26	"	Q. 179	Cause unknown.
	VI	A. A.	27	"	Q. 185	Cause unknown.
	VII	A. W.	22	"	Q. 197	Cold during menstruation.
	VIII	E. S.	42	"	Q. 203	Cause uncertain.
	IX	E. C.	25	"	Q. 220	Cause unknown.
	X	S. S.	30	"	R. 75	Gonorrhœa. Labial abscess.
Parametritis	I	E. K.	29	"	P. 235	Left side. Cause unknown.
	II	B. C.	29	Cured	Q. 13	Gonorrhœa. Labial abscess.
	III	O. A.	21	Relief	Q. 28	Phthisis.
	IV	A. B.	42	"	Q. 117	Left side. Retroflexion.
	V	M. W.	27	"	Q. 181	After induced labour.
	VI	S. P.	46	"	Q. 93	
	VII	J. W.	22	"	R. 47	
Pregnancy and its Accidents:						
Premature Labour	I	E. T.	21	Cured	Q. 1	Fright.
Abortion, Six Months		E. H.	33	Recovery	Q. 244	Fright. Dilated heart.
Threatened Abortion		A. S.	22	"	Q. 114	Went on to term.
Hydramnios and Twins		C. N.	35	"	Q. 209	
Induced Labour for Albuminuria		F. P.	24	"	Q. 67	
Abortion, 5th Month		M. B.	38		R. 7	Followed by parametritis.
Neglected Abortion		E. D.	36	Relief	Q. 262	Retained placenta removed after exploration.

CASES IN "ARDEN WARD"—*continued.*

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
PREGNANCY AND ITS ACCIDENTS—*continued:*						
Subinvolution		A. B.	20	Relief	Q. 193	After abortion at 6 months.
		J. G.	44	,,	R. 57	
Incomplete Abortion ...		J. S.	32	,,	R. 88	Placenta removed.
		M. A. B.	33	,,	R. 89	
PUERPURAL SEPTIC PROCESSES:						
Septic Infection		M. E.	24	Cured	Q. 10	
Pyæmia		A. R.	23	,,	Q. 31	Renal colic.
Menorrhagia	I	C. M.	29	Relief	Q. 37	? Subinvolution after miscarriage.
	II	E. B.	39	,,	Q. 50	? Syphilis.
	III	E. T.	32	,,	Q. 85	Mitral stenosis. Tricuspid regurgitation.
	IV	M. B.	20	,,	Q. 99	
	V	C. B.	51	,,	Q. 147	
	VI	E. W.	45	,,	Q. 167	Syphilis 6 years ago.
	VII	E. S.	41	,,	Q. 218	? Fibroid.
UNCLASSIFIED:						
Malignant Disease of Omentum		E. K.	77	No relief	Q. 77	Transferred to Harpur.
Thrombosis of Left Femoral Vein		E. A.	28	Relief	Q. 81	Pregnancy.
Neurosis	I	R. G.	18	,,	Q. 129	Chronic constipation.
	II	F. G.	35	No relief	Q. 169	Hysterical hip joint disease.
	III	M. W.	26	Relief	Q. 251	Hysterical incontinence of urine.
	IV	S. R.	29	,,	R. 179	Retention of urine.

Recto-Vaginal Fistula...		K. W.	43	No relief	Q. 269	
Tertiary Syphilis	I	S. M.	46	Relief	R. 22	
Cystitis	I	F. T.	50	,,	R. 37	
DEATHS:						
Pulmonary Embolism ...	I	C. M.	62		Q. 205	From detached thrombosis of femoral vein.
Ruptured Ovarian Cyst and Peritonitis		M. E.	56		Q. 265	Fibroid polypus removed.

SOME INFORMATION RESPECTING THE WESTMINSTER HOSPITAL AND SCHOOL.

THIS Hospital owes its origin to a meeting which was held at St. Dunstan's Coffee House on the 14th January, 1715, and first opened its doors at a small house in Birdcage Walk, under the name of the "Publick Infirmary for the Sick and Needy." At this time the only Hospitals which existed for the medical and surgical relief of the sick poor were St. Bartholomew's and St. Thomas's, both having been established and carried on by the religious houses of their respective neighbourhoods, and created royal hospitals soon after the suppression of the monasteries in 1537.

Westminster Hospital is remarkable as being the first in London which was founded by the voluntary contributions of the public. Guy's Hospital, founded by the munificence of one individual, was not established until a few years later. After nearly five years' work in Birdcage Walk, as an institution for the administration of relief, the Hospital was opened for the reception of In-patients, with thirty beds, and with an entrance from Petty France. So rapidly did its usefulness develop that in 1724, having been in existence for little more than nine years, it opened its wards in Chapel Street with sixty beds. At this time Cheselden, the teacher of John Hunter, became one of its Surgeons; a post which he held for fifteen years. Another nine years passed, and in 1733 the Hospital was removed to a still larger building in James Street, where it remained for 101 years. This removal, however, did not take place without a strong protest on the part of a large body of the Governors, who preferred a house near Hyde Park Corner, called Lanesborough House, to which they finally seceded with a portion of the staff, and established the present St. George's Hospital.

In 1834 the patients were removed into the present building, and a Medical School was established in Westminster in the

same year; but it was not until 1849 that the School became connected with the Hospital.

In 1884 a site containing 5,900 square feet was purchased in Caxton Street, close to the Westminster Town Hall, and in October of the same year the Governors of the Hospital accepted a contract for £8,168 for the erection of School Buildings from plans drawn up by Mr. Stephen Salter, F.R.I.B.A. The foundation-stone was laid by His Grace the Duke of Westminster on February 28th, 1885, and the building was opened on October 1st in the same year.

The recent extensive alterations and improvement, including a Chapel and an extensive Out-patient Department, have largely added to the resources and efficiency of the Hospital, which at present contains upwards of 200 beds, including accommodation for special classes of disease. The old Chapel has been converted into a Ward for Children.

There are separate departments for diseases of the Eye, of the Ear, of the Skin, of the Teeth, of the Throat, for those peculiar to Women, and for Orthopædic practice.

Communications respecting the Medical School should be addressed to the Dean of the School, from whom all particulars may be obtained on application, either personally or by letter. Information may also be obtained at any time from the Secretary of the School, Caxton Street, S.W.; from the Secretary at the Hospital; or from any of the Lecturers.

HOSPITAL STAFF.

Consulting Surgical Staff— MR. HOLT.
MR. HOLTHOUSE.

Medical In-patient Staff— DR. STURGES.
DR. ALLCHIN.
DR. DONKIN.

Surgical In-patient Staff— MR. COWELL.
MR. RICHARD DAVY.
MR. MACNAMARA.

Medical Out-patient Staff—DR. DE HAVILLAND HALL.
DR. MURRELL.
DR. HUGHES BENNETT.
DR. HEBB.

Surgical Out-patient Staff—MR. T. COOKE.
MR. T. BOND.
MR. STONHAM.
MR. SPENCER.

Obstetric Physician—DR. POTTER.

Obstetric Physician to Out-patients—DR. GRIGG.

Physician for Diseases of the Skin—DR. COLCOTT FOX.

Aural Surgeon—MR. JAMES BLACK.

Dental Surgeons—MR. LLOYD WILLIAMS.
MR. DOLAMORE.

Surgeon in charge of the Ophthalmic Department—
MR. HARTRIDGE.

Surgeon in charge of the Orthopædic Department—
MR. RICHARD DAVY.

Physician in charge of the Throat Department—
DR. DE HAVILLAND HALL.

Administrator of Anæsthetics—DR. BOURNS.

Pathologist—DR. HEBB.

Curator—MR. C. STONHAM.

Medical Registrar—DR. WILLS.

Surgical Registrar—MR. POWELL.

LECTURERS.

Clinical Medicine—Dr. STURGES, Dr. ALLCHIN, Dr. DONKIN.
Clinical Surgery—
Mr. COWELL, Mr. DAVY, Mr. MACNAMARA.
Clinical Gynæcology—Dr. POTTER.
Medicine—Dr. STURGES, Dr. ALLCHIN.
Diseases of the Skin—Dr. COLCOTT FOX.
Diseases of the Throat and Nose—Dr. DE HAVILLAND HALL.
Neurology and Insanity—Dr. CHARLES MERCIER.
Elementary Practical Medicine—Dr. DONKIN.
Surgery—Mr. COWELL.
Ophthalmic Surgery—Mr. HARTRIDGE.
Orthopædic Surgery—Mr. RICHARD DAVY, F.R.S.E.
Aural Surgery—Mr. JAMES BLACK.
Dental Surgery—Mr. LLOYD WILLIAMS.
Anæsthetics—Dr. BOURNS.
Practical and Operative Surgery—
Minor Surgery and Surgical Pathology—Mr. SPENCER.
Midwifery and Diseases of Women—Dr. POTTER.
General Pathology and Morbid Anatomy—Dr. HEBB.
Post-Mortem Demonstrations—Dr. HEBB.
Materio Medica, Therapeutics, and Pharmacology—Dr. MURRELL.
Demonstrator of Practical Pharmacy—Mr. A. E. TANNER.
Forensic Medicine—Mr. T. BOND and Dr. GRIGG.
Toxicology—Dr. DUPRE, F.R.S.
Public Health—Dr. S. MONCKTON COPEMAN.
Anatomy—Mr. BLACK.
Practical Anatomy—Mr. C. STONHAM and Mr. D. GUNN.
Physiology, Practical Physiology, and Histology—
Mr. SPENCER and
Biology—Dr. TIMS.
Chemistry—
Dr. DUPRE, F.R.S., and Dr. H. W. HAKE, F.C.S., F.I.C.
Practical Chemistry—Dr. H. WILSON HAKE.
Demonstrator of Physics—Mr. H. SOMERVILLE, B.Sc.

Treasurer of the School—Mr. COWELL.
Dean of the School—Dr. ALLCHIN.
Secretary and Librarian—Mr. HOUGHTON.

FEES FOR GENERAL STUDENTS.

A.—The composition Fees for the entire course of Hospital Practice and Lectures required for the Membership of the Royal College of Surgeons of England, and for the Licenses of the Royal College of Physicians, and of the Society of Apothecaries of London, may be paid in one of three ways.

1. In *one* payment on Entrance, £115.

2. In *two* payments of £60 each, on Entrance and at the Commencement of the Second Winter Session respectively.

3. In *six* payments at the Commencement of each of the first Six Sessions, £27 each Winter Session, and £17 each Summer Session.

B.—Members of the Universities of Oxford, Cambridge, Durham, and others, who have completed one year of Medical Study at an University or another Medical School, and desire to enter for the Hospital Practice and Lectures required by those Universities, and by the Colleges of Physicians and Surgeons, may pay their Fees in one of three ways, viz. :—

1. In *one* payment of £80 on Entrance.

2. In *two* payments of £42 each, at the Commencement of the First and Secend Sessions of attendance.

3. In *three* payments of £30 each, at the Commencement of the First, Second, and Third Sessions respectively.

C.—Students who have completed their Anatomical and Physiological studies, and desire to enter for the full period of Hospital Practice and the Lectures on the practical subjects only, may pay their Fees in one of two ways, viz. :—

1. In *one* payment of £64 on Entrance.

2. In *two* payments of £34 each, at the Commencement of the First and Second Sessions of attendance.

These Fees entitle the Student to an Out-Patient and In-Patient Dressership and Clerkship in rotation, and free him to the Library.

For particulars as to the Fees for Special Classes, application should be made to the Dean.

TABLE OF SCHOLARSHIP AND PRIZES.

Annually offered for Competition.

I.—ENTRANCE.

WINTER SESSION—

1. Sixty Pounds in four half-yearly instalments.
2. Forty Pounds in four half-yearly instalments.
3. Twenty Pounds in four half-yearly instalments. (For Dental Students.)
4. Free Presentation open to Pupils of Epsom College.
5. Forty Pounds in four half-yearly instalments. (Senior Scholarship for Oxford and Cambridge men.)

SUMMER SESSION—

6. Sixty Pounds in four half-yearly instalments. (Science.)
7. Forty Pounds in four half-yearly instalments. (Science.)

II.—END OF FIRST YEAR.

8. Treasurer's Prize (value £10 10*s.*), in two half-yearly instalments.

III.—END OF SECOND YEAR.

9. President's Prize (value £21), in two half-yearly instalments.

IV.—END OF CURRICULUM.

10. Clinical Medicine Prize (value £5), in books or instruments.
11. Clinical Surgery Prize (value £5), in books or instruments.
12. Chadwick Prize for General Proficiency (value £21), in books or Instruments.
13. Bird Medal and Prize (value £14).

In addition, there are Prizes in some of the Classes, and Certificates of Merit.

HOSPITAL PRACTICE.

The In-Patients are seen by the Physicians and Surgeons daily at 1.30 p.m,, when Clinical instruction is given in the Wards, and also by means of lectures and examinations upon the cases.

Clinical Lectures are given weekly in the Clinical Lecture Room at the Hospital, before or after the visit, by the Physicians and Surgeons, according to the following table:—

Dr. STURGES, on Thursdays, in January, February, March.
Dr. ALLCHIN, on Fridays, in October, November, December.
Dr. DONKIN, on Wednesdays, in May, June, July.
Mr. COWELL, on Thursdays, in October, November, December.
Mr. RICHARD DAVY, on Fridays, in May, June, July.
Mr. MACNAMARA, on Wednesdays, in January, February, March.
Dr. POTTER, on Fridays, throughout the year.

HOSPITAL APPOINTMENTS.

The following Officers of the Hospital are appointed by the House Committee, on the recommendation of the Physicians and Surgeons, and *without the payment of any fee.* Preference is given to those gentlemen who have been educated at this Hospital, provided that they possess the special qualifications required.

A Pathologist, with a Salary of Fifty Pounds, and *a Curator of the Museum* and a *Medical and Surgical Registrar,* each with a Salary of Forty Pounds.—These officers are appointed annually in March, but are eligible for re-election.

Two House Physicians, Two House Surgeons, and a Resident Obstetric Assistant.—These officers are appointed for six months, and are provided with rooms and commons in the Hospital. Candidates are required to produce certificates of having acted for four months each as Out and In-Patients' Clinical Clerk for the office of House Physician, and as Senior Dresser and Out and In-Patient's Dresser for the office of House Surgeon, and of having a practical knowledge of Anæsthetics. They are selected by examination in Medicine, Surgery, or Midwifery, respectively.

Clinical Assistants to the Assistant Physicians and Assistant Surgeons and *Assistants* to the Officers in charge of the Special Departments, may be appointed, on the approval of the House Committee of the Hospital, from amongst qualified Students, to assist in the work of the Departments.

Clerks and Dressers.—These offices are open to all general Students of the Hospital, nominated by the School of Medicine Committee and appointed by the Hospital Board.

MUSEUMS.

One of the special features of the new building is the Museum. It is large, quiet, and very light, and affords an agreeable place for study. It is surrounded by a gallery, one side of which is occupied by the Materia Medica collection, and the rest by part of the Pathological specimens.

The Anatomical portion of the Museum has recently been much enlarged and improved, and contains dissected Preparations of all the principal tissues and organs of the Body, and a series of Models in Wax, which are used to illustrate the Anatomical and Physiological Lectures, and the Student's reading.

The Pathological Museum is furnished with Specimens illustrating all the principal Morbid Conditions of the Body, and the Accidents to which it is liable. A large number of casts give the external appearances presented by the specimens prior to dissection. Constant additions are being made to this department by the selection of Pathological specimens from the Post-mortem Room. A descriptive catalogue of the Pathological Specimens prepared by Mr. C. Stonham has recently been published, and can be obtained of the Secretary of the School, price five shillings.

Valuable collections of Obstetric preparations and specimens of Comparative Anatomy are used to illustrate the lectures on those subjects.

The Materia Medica Museum contains all the Pharmacopœial preparations, and a complete collection of Botanical specimens. The collection has recently been enlarged by the addition of the new preparations contained in the new British Pharmacopœia. It contains many specimens of great rarity.

LIBRARY.

The Library is open daily from 10 to 5 (Saturday 10 to 2) *for purposes of study*, and a Librarian is in attendance, to supply the Books for perusal, and to maintain order.

It is under the management of a Committee, appointed by the School of Medicine Committee, consisting of the Dean and two Lecturers, and two Students who have completed not less than two years of study at the Westminster Hospital School of Medicine, nominated by the Students.

The Entrance Fee of One Guinea is included in the general fees. Students who have entered for one or two Sessions may secure the same privileges by paying a fee of half-a-guinea.

Three Microscopes and a Collection of Bones are placed under the care of the Librarian, for the use of the Students in the Library.

GUTHRIE SOCIETY.

Meetings of this society, for the reading and discussion of papers of Professional and General interest, the exhibition of Physiological and Pathological specimens, &c., are held on the second Thursday of each month, at 8 p.m.

PATHOLOGICAL SPECIMENS RECENTLY ADDED TO THE MUSEUM.

SERIES VIII.—FRACTURES.

Fracture of the Patella.

102A. A patella fractured transversely, the fragments being united by membrane. They are separated for 3½ inches.

Presented by Mr. EDGAR WILLETT.

SERIES IX.—INFLAMMATORY CHANGES IN BONE.

Caries.

168A. Perforating Tuberculosis of the Skull. The disease is limited to the frontal bone. There are six foci. The two smallest on the left side have undergone spontaneous cure: of these the largest has perforated the skull, and the hole is filled by dense fibrous tissue, the margins of the perforation being rounded off. The smallest has only affected the outer portion of the bone. All the other patches have perforated the skull-cap. The posterior one on the right side had not been operated on; it is surrounded by a raised, pale ring, shewing the area of infiltration; in removing the scalp, this was torn open and the fungus mass disclosed. The other three masses had all been sharp spooned and were at the time of death quiescent, and shew distinct evidences of healing.

History.—A. M., æt. 9 weeks, was brought to the skin department of the hospital on October 28th, 1891, suffering from "snuffling," intertrigo of the thighs, and there was some history of slight "thrush going through." There was no history of phthisis on the father's side, but the maternal grandmother and great-grandfather had died of phthisis. The child's mother was well and strong, as were her brothers and sisters. The eldest child was well, but had had two abscesses behind the ears when 5 months old; the second child died

of pertussis and consumption: the patient was the third child. In January, 1892, when she was 5 months old, the child was vaccinated (at Rochester Row) in 4 places, which took well. On the 10th day urticaria appeared and was treated by Dr. Fox for 3 months. The vaccination sores did not heal up and erysipelas set in on February 11th, 1892. The erysipelas affected the child from the waist to the feet. At this time the mother drew attention to one of the vaccination marks, which Dr. Fox found was affected by lupus. About the middle of May the child was again brought to the hospital with urticaria and tumours on the frontal bone. Mr. Stonham now saw the case with Dr. Fox, and at first these elastic painless tumours were thought to be tubercular, but the possibility of sarcoma was entertained. Some weeks later fluctuation was detected and one of the abscesses was opened and the bone scraped: eventually two more abscesses were opened and the bone freely scraped. They all healed without any trouble under one dressing. After this there appeared in succession the following tubercular lesions:—Epiphysitis of the left knee and left elbow, dactylitis of one metacarpal bone and two phalanges, enlargement of the epitrochlear glands, and a cold abscess in the masseteric lymphatic gland. There were no signs of visceral disease, but the child's health gradually failed. All the bone lesions cleared up under rest and general treatment. There was undoubted lupus in one vaccination scar. Early in November, 1892, there was a sudden but slight eruption of lichen scrofulosorum on the lower part of the abdomen and thighs. There were also several large acneiform pustules on the thighs, back and front, with coppery prominent bases, and some small abscesses of the buttocks. As the pustules subsided the solid bases were left and very slowly spread as typical lupus nodules. The lichen disappeared by November 23rd. The child had been gradually getting weaker, there was diarrhœa, and cerebral symptoms set in a few days before death, which occurred on December 12th. Towards the end of life the various tubercular lesions of the bones and glands almost entirely disappeared as far as examination could detect them.

Post-mortem Examination.—In the left lung there was a small dry caseous mass about the size of a hazel nut: otherwise lungs healthy. Heart, liver, kidneys, &c., normal; brain:—tubercles along the branches of all the arteries, especially the anterior cerebrals; blocking of iter with distension of the ventricles by clear fluid. No actual meningitis. In the bones which are mentioned as having been affected, caseous tubercle was found.

Presented by Dr. Fox and Mr. Stonham.

Caries of the Spine.

178c. The right half of a spinal column from the 12th dorsal vertebra downwards with the right innominate bone of a child. The 2nd and 3rd lumbar vertebræ are the seat of caries, the intervening disc has been destroyed. The upper portion of the column has been displaced backwards, the nerves of the cauda equina being pushed backwards, between the bones and the spinal dura is a thick layer of inflammatory material extending

the whole length of the specimen. There is a psoas abscess passing downwards to the pubic ramus; this has been laid open. The muscular fibres of the psoas are atrophoid; the psoas fascia has been partly separated from the muscle below. Lying behind the two diseased vertebræ is a large sequestrum. There was a psoas abscess on the left side.

SERIES XIII.—TUMOURS OF BONE.

Cancer.

265. Portion of a parietal bone perforated by a mass of new growth secondary to disease of the breast. On the inner aspect of the bone the growth forms a flattened rounded mass, externally it is much smaller.

History.—E. F., æt. 47, was admitted on October 31st, and died November 26th, 1892. Two years before she noticed lancinating pains in the left breast, and eighteen months later a small tumour. On admission there was a small hard lump in the breast, adherent to the skin but not to the deeper tissues. Axillary glands enlarged. Amputation of the breast and removal of the glands was performed. The wound only healed in front, the rest remaining in a callous condition, secreting a little pus. Her condition gradually became worse, and she died comatose twenty-four days after operation.

Post-mortem Examination.—Brain and membranes normal. Secondary deposit in the left parietal and in the left orbital plate of the frontal bone. Numerous small secondary growths scattered over all the peritoneal surface. Liver 53½ ounces, contained numerous large secondary growths. Deposits also in the pancreas and left adrenal, and in many of the ribs. *Vide* P.M. book, Vol. 7, p. 294.

Presented by Mr. MACNAMARA.

266. A piece of rib with the costal cartilage. The rib has for the greater part of its length been destroyed by a cancerous new growth. The surface of section is spongy and studded with small cysts. In the situation of the growth all trace of the bone has disappeared. From the same case as the preceding.

SERIES XV.—DISEASES OF JOINTS.

Ankylosis.

355A. The cervical and first dorsal vertebræ. With the exception of the atlas they are all firmly united by bone, due to

ossification of the various ligaments. Nodules of new bone are present on the odontoid process of the axis, and the corresponding articular facet on the atlas is broadened and deepened. The portion of the column preserved is curved from above down, the concavity looking forwards. The condition is rheumatic. The specimen was from an old man brought into the dissecting room.

Presented by Mr. DAVY.

SERIES XXVI.—DISEASES OF THE INTESTINES.

Perityphlitis.

501A. The right half of a pelvis, with the cæcum, vermiform appendix and a piece of the ilium, and the right half of the bladder and a part of the rectum. The peritoneal surface is coated with lymph. The vermiform appendix is adherent to the wall of the true pelvis, its apex being concealed by the bladder. It is much enlarged, and a piece has been removed from its wall to shew a calculoid impacted in it, close to its origin from the cæcum. The appendix is perforated at its base.

History.—J. S., aged 7, was admitted November 22nd, and died November 23rd, 1892. He was in good health until November 19th, when he was suddenly taken ill with continued vomiting and pain in the abdomen. The bowels had been open on November 18th. On admission he was much collapsed, with cold extremities and an anxious expression. The temperature was slightly raised: pulse 138, feeble, respiration 36, shallow. The abdomen was distended and tense, and there was general tenderness. Vomiting of clear yellow fluid was continuous. The propriety of abdominal section was discussed, but the patient was too far gone to allow of its performance.

Post-mortem Examination.—General peritonitis. Adherent lymph on the coils of gut. About three quarters of a pint of fæculent pus was found in the abdominal cavity. *Vide* P.M. Book, Vol. 7, p. 292.

Presented by Dr. ALLCHIN.

SERIES XXVII.—DISEASES OF THE RECTUM.

Cancer of the Rectum.

507A. Two plum stones, a biliary calculus, and part of another with four rolled-up leaves of a dicotyledonous plant, which were removed from the rectum of a patient suffering with epithelioma. Inguinal colotomy was subsequently performed.

History.—The patient was admitted to Mark Ward on September 24th, 1892. He had been an out-patient for some time with sinuses round the anus, some of which had been slit up. On admission there were six external openings extending from the anus to the ischial tuberosities and discharging a good deal of pus. Rectal examination revealed a cancerous mass affecting the lower part, the coccyx and sacrum behind, and the bladder and prostate anteriorly. In this mass of new growth the matters preserved in the specimen were found. The sinuses were laid freely open. October 4th.—Left inguinal colotomy was performed, a glass rod being passed through the mesentery. October 7th.—The bowel was opened, and some days later the protruded coil was cut away with the cautery. The patient was sent out wearing a colotomy truss; the local and general improvement was marked. Microscopic examination of the growth by Dr. Hebb showed it to be a columnar epithelioma. February, 1893.—The patient returned, having put on so much flesh that the truss, at first rather large, was too small. The colotomy wound was satisfactory, and the sinuses round the anus had closed. The finger passed into the anus entered a narrow indurated canal, from which a little discharge came. There was neuralgic pain down the legs, probably from pressure on the sacral plexus by the growth.

Presented by Mr. SPENCER.

Innocent Tumour of the Rectum.

508A. Papillomatous tumour removed from the rectum. The situation of the pedicle is indicated by a slight depression, seen at the lower part of the specimen. The surface is nodular and the tumour split up by sulci, rendering it foliated.

Presented by Mr. RYALL.

SERIES XXVIII.—HERNIA.

Umbilical Hernia.

526A. An umbilical hernia laid open by removal of part of the wall. It contains omentum adherent to the margin of the opening. The omentum is thickened and tough, having lost its natural appearance from long continued congestion.

SERIES XXIX.—DISEASES OF THE LIVER.

Amyloid degeneration.

544A. A slice from an amyloid liver. The degenerated areas are more darkly coloured than the surrounding parts.

Presented by Mr. EDGAR WILLETT.

Non-Malignant Growths. Angiomata.

562A. Two slices of liver substance in which are numerous angiomata. Most of these are on the surface, forming rounded tumours surrounded by a puckered depression. The peritoneum over them is normal, and the surrounding liver substance does not shew any naked-eye changes. The cut surface of the tumours is deeply stained by coagulated blood, but in some parts this is absent and the spongy nature of the growth is well seen, especially in the deeply seated one in the smaller specimen.

Presented by Dr. ALLCHIN.

SERIES XXXIX.—INJURIES AND DISEASES OF THE LARYNX AND TRACHEA.

Foreign Body.

761A. Portion of a date stone found in the bronchus of a child.

761B. The larynx, trachea and left lung, from the same case as the preceding. The lung was firmly adherent to the chest walls. All the bronchi are much dilated and thickened, looking like cavities, and the lung substance is the seat of fibroid phthisis. Near the base is an abscess cavity, which was opened during life; a glass rod has been passed along this into the bronchus. In the bronchus itself, about half an inch from its commencement, is an ulcerated area in which the foreign body was lying.

History.—J. D., æt. 5 years, was admitted on July 12th, 1892. For 3 or 4 months previously he had had a cough, but was otherwise quite well. On July 10th he was suddenly taken ill with headache and dyspnœa, the cough became worse, and at night he was delirious. On admission there was considerable dyspnœa; respirations 68, shallow. Dulness all over left chest; vocal resonance and fremitus diminished, and breath sounds indistinct. Pulse 148: Temperature 102° to 104°. Urine normal. The dyspnœa became worse, and on July 15th the left chest was explored with a needle, about 1½ ounces of turbid fluid being drawn off. He did not improve: the temperature varying up to 104°. His appetite failed and he sweated profusely. On July 28th an anæsthetic was given and a piece of the 9th rib removed: an abscess of the lung was opened. This contained very little pus. A probe was introduced in the hope of finding a foreign body, but nothing could be found. The abscess was drained, and careful inquiry from the friends failed to discover any symptoms usually associated with swallowing a foreign body. The condition remained much the same for six weeks,

when the child made marked improvement and put on flesh. On October 20th he developed scarlet fever and was sent to the fever hospital. On his recovery he was re-admitted in order that further search might be made for the foreign body which was thought to be present (June 11th), but the next night he suddenly died asphyxiated.

Post-mortem Examination.—Left pleura thickened, universally adherent. Right lung and other organs healthy. *Vide* P.M. Book, Vol. 7, p. 332.

SERIES XLI.—DISEASES OF THE KIDNEYS.

Injury.

790A. A granular contracted kidney, which has been extensively lacerated. The uppermost piece was completely separated. From the same case as No. 803.

History.—The patient was brought in dead on January 20th, 1893, having been knocked down and run over by a brick cart.

There was laceration of the right kidney, with fracture of the transverse processes and arch of the 3rd lumbar vertibra, with hæmorrhage into the spinal canal. Lower six ribs on each side fractured and comminuted. Both lungs lacerated at the extreme base; blood in pleural cavities. *Vide* P.M. Book, Vol. 7, p. 339.

Presented by Dr. HEBB.

Bright's Disease.

799. Specimen of large white kidney. The organ is considerably enlarged and anæmic, but on the surface many of the veins are engorged with blood. The cortex is especially swollen. The capsule has been removed from one half of the specimen, it was very thin, but the renal substance was not torn.

History.—I. V., æt. 32, was admitted on December 29th, 1892, and died on January 4th, 1893. He had been in the army and been a heavy drinker: latterly he earned his living as a "general dealer." On admission there was general œdema: urine acid, albumen ½, blood. Systolic apex murmur. On September 14th he became comatose and remained so for 36 hours, having uræmic convulsions and delirium. During this time he passed a great quantity of urine and urea. On January 2nd he again had uræmic convulsions followed by coma and death in 36 hours.

Post-mortem Examination.—General anasarca with large quantities of fluid in all the serous cavities. Great hypertrophy of the left cardiac ventricle. *Vide* P.M. Book, Vol. 7, p. 320.

Presented by Dr. STURGES.

803. A granular contracted kidney. It is smaller than natural, the cortex being diminished. The substance is tough,

the surface granular, and two collapsed cysts are seen on one half. From the same case as No. 790A.

Malignant Tumours.

814A. A kidney the seat of malignant disease. All trace of kidney substance is lost; the capsule is considerably thickened. The outer surface is lobulated: on the surface of section the lobules of the growth are separated by bands of fibrous tissue. The growth is soft and spongy, and in many places is broken down by hæmorrhagic extravasation. It has grown into the upper part of the renal vein and into the pelvis of the organ and the ureter.

Microscopic Examination.—An example of glandular carcinoma; the epithelial cells are for the most part cuboidal.

History.—H. M., æt. 42, was admitted November 14th, and died December 30th, 1892. She was a married woman. Six months before admission she had a fit and was unconscious for two hours: her mouth was drawn to the right. The left arm became weak, but she never quite lost power in it: the leg was not affected. In the next fortnight she had three more fits. A month before admission there was a fifth fit, after which the leg was also affected, and the arm and face became worse. There was some loss of sensation. No facts as to her previous general health could be obtained. On admission she was in a very stupid condition. Urine acid, sp. gr. 1010, with a trace of albumen. Urine and fæces passed involuntarily. While in the hospital her condition slightly improved, but her memory was very deficient, and she was very irritable. On December 29th the temperature began to rise: she vomited frequently: became unconscious, and died in 24 hours.

Post-mortem Examination revealed two tumours in the right cerebral hemisphere. They were quite soft and sharply demarcated from the surrounding brain substance. The larger tumour was in the parietal region, the smaller in the upper frontal convolution. There were also secondary deposits in both lungs. These masses were white and firm, of the size of hazel-nuts. The right kidney, the specimen, weighed 34 ounces, and the left 13. The growth on the left side had spread into the iliacus muscle, disorganising it and exposing the bone. *Vide* P.M. Book, Vol. 7, p. 315.

Presented by Dr. STURGES.

SERIES XLII.—DISEASES OF THE URINARY BLADDER.

STONE IN THE BLADDER—MIXED CALCULI.

Uric Acid and Phosphates.

923A. A calculus removed from the bladder of a boy, aged 7, by lateral lithotomy. The outer surface is roughened, and of a brown colour, due to admixture with organic matter.

Chemical Composition by Dr. Wilson Hake.—The nucleus is composed of uric acid; the body and crust of phosphate of calcium, the latter containing some organic matter. Weight—263 grains.

History.—H. P., æt. 7, was admitted on October 7th, 1892. He had had symptoms for two years, chiefly frequency of micturition with pain especially on movement. The urine was stated to be always of good colour and never to have contained blood. Lately the symptoms, especially the pain, had been worse and he had been losing flesh. On admission the pain was principally in the loins and hypogastric region. Urine acid sp. gr. 1010, slight amount of albumen, with some muco-pus and phosphates. On October 18th lateral lithotomy was performed. The wound was quite healed by January 16th, 1893, when the patient left the hospital.

Presented by Mr. Bond.

SERIES XLVII.—DISEASES OF THE TESTIS AND TUNICA VAGINALIS.

Hydrocele.

997A. A large hydrocele of the tunica vaginalis testis. The testis is below and behind and is smaller than natural. Bands of tissue pass from the testis to the main wall of the sac, one at the upper part has a broad free margin and from its extremity fine cords pass to various parts of the sac-wall.

History.—The patient was a man aged 54. He died of phthisis.

Presented by Dr. Donkin.

997B. A hydrocele from the same case as the preceding. The normal outline of the testis has been lost, its position is indicated by thickening only; from this broad and dense bands pass to the sac-wall making the hydrocele loculated below.

SERIES XLIII.—DISEASES OF THE OVARIES.

Cystic Tumours of the Ovary.

Simple Follicular Cysts.

1029A. Part of the left Fallopian tube and the ovary. The ovary is the seat of three simple follicular cysts. The largest one measures about 2¼ inches in diameter; its interior is smooth

and nacreous in appearance. It contained quite clear fluid. The fimbriæ of the Fallopian tube are well seen above the remains of the ovary.

History.—The patient was a young married lady who had suffered for some time with abdominal pains. She had been treated for floating kidney. She eventually consulted Dr. Grigg, who discovered the cyst which was removed by Mr. Stonham. At the operation the kidneys were found to be quite healthy and not moveable. The patient made an uninterrupted recovery.

Presented by Dr. GRIGG.

1029B. The Fallopian tube with part of the broad ligament and the ovary, which is the seat of a follicular cyst. The Fallopian tube is bound down to the cyst-wall by inflammatory adhesions, and its fimbriæ are inverted and the free end of the tube closed; the tube is not distended. The cyst is divided into two unequal portions by a septum, imperfect at the upper part. The interior presents a reticulate appearance, reminding one of the musculi pectinati in the auricular appendix. The wall of the cyst is thickened by chronic inflammation.

History.—Annie P., married, æt. 25, was admitted on October 4th, 1892, complaining of a painful swelling in the left side of the abdomen. Three weeks after her last confinement (July 6th, 1892) she noticed a swelling in the groin, and on getting up that her abdomen was larger, and there was some pain. She has had 2 children. Ovarian tumour was diagnosed. Laparotomy was performed on October 22nd, and the patient made a good recovery. *Vide* Obstetric Case Works, 1892, p. 229.

Presented by Dr. POTTER and Mr. MACNAMARA.

SERIES LVA.—DISEASES OF THE EAR.

Foreign Bodies.

Foreign bodies are not infrequently found in the ears of children. If retained for any length of time they are liable to excite inflammation, with ulceration of the meatus, which leads to their detection and removal. Occasionally more or less alarming reflex phenomena are excited by the presence of a foreign body.

1173A. A hook, such as is used for fastening ladies dresses, which was removed from the ear of a child four years of age, where it had been lodged for two years, giving rise to a black discharge. The hook is encrusted with rust.

Presented by Mr. VALENTINE MATTHEWS.

SERIES LVIII.—DISEASES OF THE SKIN.

New Growths.—Papillomata.

1239A. An elliptical piece of skin, growing from which is a simple papilloma. It resembles the head of a cauliflower. Its base is narrow compared with the surface area of the growth. Some of the smaller pieces are attached separately by small rounded pedicles.

History.—The specimen was removed from the abdominal wall of a woman aged 76. It had been growing for two years, and patient stated that it began in a small black mole. It was situated over the left hypochondriac region. The patient died soon after the removal of the tumour from natural decay.

Presented by Mr. STONHAM.

SERIES LX.—MALFORMATIONS.

Hare Lip and Cleft Palate.

1282A. Double hare lip and cleft palate. The premaxillary bone is attached to the tip of the nose, and is united on the right side by a small piece of integument, so that the right nostril is complete. The cleft of the palate is complete. The septum deviates towards the right, reducing the nasal fossa to a slit. The child died at the age of six weeks from marasmus.

Presented by Dr. HEBB.

SERIES LXI.—PARASITES.

Nematoda.

ANCYLOSTOMUM DUODENALE.

This parasite is especially common in Egypt and Northern Italy. During the boring of the St. Gothard Tunnel many of the workmen fell victims to it. Those who work with soil are especially attacked by this parasite; it is probable that the ova get under the fingers-nails of the labourers; and are thus conveyed to the mouth. The parasites inhabit the small intestine, and produce severe anæmia and chlorosis. The females are more numerous and larger than the males, the latter measuring

about $\frac{1}{3}$ inch but the former may be $\frac{1}{2}$ inch in length. The tail-end is sharply pointed in the female, more blunt in the male, and covered with a bilobed bursa. The parasite is viviparous.

1336. Specimens of the Ancylostomum Duodenale. The worms came from Egypt, and were voided by a patient in hospital. The whitish smaller worms are specimens of the Oxyuris Vermicularis.

Presented by Dr. WILLS.

REPORT OF THE GUTHRIE SOCIETY, 1891—92.

SINCE the last report of the proceedings of the Guthrie Society was penned, considerable changes have taken place in the Society's working, all of which are in the right direction, namely, in the direction of increased activity and vigour.

Hitherto, the monthly meetings of the Society have been occupied by the reading of papers on various subjects of medical or general scientific interest. Latterly, however, the Committee has felt that there is one field of interest and utility which has been too long neglected. These papers, excellent in every way, evoking considerable interest in subjects out of the way of the average student's work, and prepared at a considerable cost of time and labour, have yet failed to induce the audience to speak on the subject on hand, and so arouse an active interest in what has been put before it. A Society like the Guthrie Society depends for its very existence on the activity of its members, and it is this very want of active participation in the business of the Society which has hitherto been so marked. It was felt that the Society had a considerable future in front of it in developing the powers of its members in public speaking by enabling them to express their thoughts in words with more than ordinary fluency. The first step in this direction was the introduction of debating evenings, pure and simple, when the discussion should be opened by a member without the formality of a set paper.

That this step has met with success is shown by the fact that the members have found that purely medical and scientific subjects have not afforded a sufficiently wide ground for discussion, and it has been unanimously decided to permit the discussion of any subject of general interest, subject to the proviso that it shall be first submitted to the Committee.

The success that the debates have had so far has been most

encouraging. There has been some really excellent speaking by the members, and the most gratifying thing to notice is that such a considerable proportion of members present should have entered into the arena, proving the interest aroused by the subjects chosen. The two most successful debates held so far have been on "Vivisection," and on "the question of admitting women to the medical profession." The result of the former was that the Society almost unanimously declared itself in favour of the practice of vivisection, and in the second almost as unanimously in favour of the exclusion of the other sex from the profession. At both meetings the interest taken was considerable, as evinced by the numerous attendance and the energetic character of the debate. So far no long debate has been held under the rule permitting the discussion of any subject of general interest, but an impromptu debate, held on December 8th, at which various subjects, ranging from "the five years' curriculum" to the "unrestricted immigration of aliens," were discussed, was sufficiently successful to give every incentive to its continuance.

The number of the Committee of the Society has been increased by two, bringing the whole number up to ten. The Society is much indebted to the Committee-men for their energy and for the interest they take in the well-being of the Society, which has resulted in many improvements in its work. The arrangements for the lending of the books obtained from Lewis' Library have been revised, and the Hon. Librarian, Mr. Farrant, reports that on the whole they work very fairly.

The Society is indebted to the following gentlemen for their papers read at the monthly meetings of the Society:—

To Mr. R. Nitch-Smith for a paper on the "Climate, History, &c., of the Cape of Good Hope."

To the Vice-President, Mr. P. Macleod Yearsley, for a most interesting paper on the "Medical knowledge of the ancient Egyptians," also for one on the "Life of G. J. Guthrie," the name-father of the Society.

To Mr. M. Farrant for a paper on the "Colours of animals, their meaning and uses," the discussion on which was more spirited than usual.

To Mr. T. Bond for his "Notes on some medico-legal cases," in which he reviewed some of the most interesting criminal cases of our times from their medico-legal aspect.

To Mr. Mills for a paper on "Insurance."

There have been several capital smoking concerts, at which a large number of members have assisted, to whom the thanks of the Society are due.

Although the funds in hand at the end of the year are considerably lower than they were last year, this is due to no falling off in the number of subscriptions, but to an increase in expenditure owing to the increased activity of the Society. There have been acquired for the use of members a considerable number of volumes of the "Encyclopædia Britannica," and the Society hopes at some future date to be able to complete the set.

The thanks of the Society are due to the late President, Dr. Allchin, for his kindness in examining the specimens of urinary deposits belonging to the Society, also for his kindness in presenting three extra ones to aid in completing the set.

At the Annual General Meeting, held in July, Dr. Hebb was elected President in the place of Dr. Allchin, resigned, and Messrs. Nelson, Moreton, Farrant, and Lewis were elected to serve on the Committee, the Hon. Treasurer (Mr. H. H. Mills) and the Hon. Secretary (Mr. A. T. White) having been elected earlier in the year, on the retirement of Messrs. E. Sharman and A. P. Brice respectively.

By the retirement of Mr. John Green from the school the Society loses an old and valued member. He has from the very beginning of the Society's existence taken a great interest in its proceedings, furthering its welfare by his advice and personal efforts. The Society takes this opportunity of publicly thanking him for his kindly endeavours on its behalf, which have borne such good fruit, and offers its sympathy, regretting the misfortune that has withdrawn him, if only for a time, from its midst.

The year's work gives every cause for satisfaction. There have been eleven meetings and at each there has been a good attendance. But although the Society may be congratulated on its success, there is still room for improvement in many directions. There is no reason why every member of the school should not also be an active member of the Society, and it cannot be said that the students are doing their duty to the school until this is so. It is with great regret that we have to again note the small attendance of the hospital staff. If this is

due to a feeling that their presence might not be welcome, we hope that in future this feeling may cease to exist, as it is quite unfounded.

In conclusion, we may remind members that the vis viva of the Society should not be due to only the activity of a few. To the students of the school as a whole the Society looks, and looks rightly, for support. A thing that is worth doing at all is worth doing well, and if the Society's existence is to be encouraged it must be by the active and personal participation of the members in the affairs of the Society, for in that way and that way only can the Society be founded on any firm or lasting basis. Every man takes a pride in his school; let him also take a pride in the Guthrie Society, which, as its very name implies, is as much part and parcel of the school as the dissecting room or chemical laboratory.

ARTHUR T. WHITE,

Hon. Secretary.

January, 1893.

THE WESTMINSTER HOSPITAL ATHLETIC CLUBS.

In writing a short article on the above for the Westminster Hospital Reports, it is not my intention to give a detailed account of our deeds, or mis-deeds, in the past; but rather to give a brief sketch of their present position and the details, as far as it is at present possible, of a new scheme which has recently been proposed for the carrying on of these clubs in future.

In the past these clubs have been three in number, viz: Football (Rugby), Cricket and Athletic; and they have had three great obstacles to contend against, viz: the want of numbers, want of money, and want of support; but, if we may judge by recent events, there will be little ground for complaining on these scores in future.

In reviewing our successes on the field of play, it is difficult to know with whom to invite comparison. To contrast our results with those of larger hospitals must generally tell against us, and flattering as it may be to the feelings of some to hear that our goal average or batting averages compare favourably with some medical teams which have larger numbers to choose from, yet if we do not play against the same clubs the deductions are of little value. Still we have met and defeated other and larger hospitals at both cricket and football, though it might be equally true to say that at the majority of such encounters we have come off second best. However, we are generally able to put teams in the field, and give our opponents a good game in the more important of the inter-hospital competitions. I, therefore, shall not give detailed accounts of the games won or lost. Victory without details of the vanquished has but a hollow sound, and in an article of this length there is no room for such; while a list of games lost is no test of want of skill, unless space is occupied in

showing that one's opponents were also skill-less. There is no doubt, that until a hospital has made for itself an athletic reputation, athletes will not join, but will always, *cæteris paribus*, choose that hospital which excels in their particular branch of sport: this is especially the case with men from the universities, the rowing men at the present time choosing St. George's, while the football men enter at St. Thomas's.

With regard to the various clubs. The Football Club has a claim to precedence, owing to its being, probably, the oldest, having been in full working order for many years, and during some seasons, has been able to place a team in the field which may fairly be described as powerful; but, during the present season 1892-93, owing to there being few or no players among the first year men, it has suffered from want of support, and despite the energy of Mr. Mark Farrant, the Captain, and Mr. S. R. Walker, the Secretary, they have been unable to fulfil all their engagements, including their match in the United Hospital Rugby Competition. A few years ago, an Association football team was organised, and for a couple of seasons, met with very considerable success, so much so, that we should like to see another attempt made to start that game which, among its other advantages, possesses that of requiring fewer players.

The Cricket Club has been playing regularly for some years, and never more so than in 1892, when we generally had two matches per week. Despite the fact that we were beaten in the United Hospital Competition by King's College, the team, which was admirably managed by Mr. H. J. Finch, the Captain, and Mr. M. Farrant, the Secretary, performed well on many occasions, and had several very enjoyable whole day matches, at which events it is generally agreed that the state of the weather is of more importance than the result of the game. The best batting average was obtained by the Captain, while Mr. D. G. Kennard was the most successful bowler.

The Athletic Club is a comparatively new institution, having been formed in 1890, when our meeting, a very successful first attempt, took place on Dr. Mercier's grounds at Southend, Beckenham. Ambition, however, caused the venue to be changed the following year to Stamford Bridge, and that ground was again chosen for the sports in 1892. Unfortunately, owing to a falling off in the entries, and a somewhat too lavish ex-

penditure on prizes, the committee have found themselves in debt to the extent of fifteen guineas: whether, with our present numbers, we are in a position to carry out annually and successfully an athletic meeting at Stamford Bridge, is a question which will have to be decided in the future. It is, however, gratifying to chronicle the fact, that at the first meeting at which Westminster Hospital ever competed of the United Hospital sports, we succeeded in carrying off two events, viz: the high jump, won by Mr. P. A. Pierre, and the tug of war in which we beat St. Bartholomew's in the final. We regret that an old standing injury to his ankle, has prevented Mr. Pierre from doing himself, and us, justice at subsequent meetings.

With regard to the future, two general meetings of the students have lately been held of more than ordinary importance. The first was called in order to draw attention to the debt on the Athletic Club, and to discuss the means available for getting rid of it; it argues well for the future, and shows that considerable interest is at present taken in athletics, that, although it is always a more difficult thing to raise money for a debt, than for other objects, yet as a result of this meeting, the fifteen guineas required was subscribed for by the students within a few days, so that we may start on new lines unhampered by debt.

The other meeting was summoned for the purpose of submitting, for the approval of the students, a scheme for the amalgamation of the above-mentioned Clubs, so that in future they will be managed by Officers and a Committee elected annually, and the various branches of sport will be looked after by sub-committees under their control.

The General Committee is to consist of sixteen members, and will be constituted as follows: a President, two Vice-Presidents, and a Treasurer, these posts, with the exception of one Vice-Presidency, being filled by members of the hospital or teaching staff, and twelve other gentlemen, three representing each year of students, the fourth and fifth years being combined for this purpose. From them a Secretary will be chosen, and the different games managed by sub-committees elected from their number. The details of this new arrangement, not being yet completed, cannot be described, but the following have accepted office on election for the first year: President, Dr. T. Colcott

Fox; Vice-Presidents, Dr. H. B. Donkin and Mr. W. B. Winckworth; Treasurer, Mr. C. Stonham.

The financial portion of the scheme is also at present incomplete, but it is proposed that every student shall on entering pay a sum of two guineas, which will constitute life membership, and those students who have already joined shall pay proportionate sums according to their year of entry. Many members of the staff, who have always given us liberal pecuniary support in the past, have signified their intention of becoming annual subscribers of one guinea, and, in addition to this, some have promised extra assistance towards the purchase of prizes for the athletic sports. One great advantage of this will be that the Treasurer will know approximately beforehand how much money is available, and it is hoped be able to keep the expenditure within the limit. At any rate the income in the future should become more stable and less liable to those fluctuations which at present exist, often caused by such trifling circumstances as the degree of popularity enjoyed by the man who happens to be collecting subscriptions.

That this amalgamated scheme of itself, for which we are largely indebted to the enterprise of Mr. J. Nelson, will ever force Westminster Hospital to the front in the matter of sport is too much to expect, but that it may be the means of placing the Clubs on a firmer basis and securing for them better organisation, more general support, and increase the interest taken in these important matters is the heartiest wish of those who have advocated the change and been the means of bringing it about, and they await the verdict of the future with some confidence and the satisfaction of feeling that they endeavoured to do their best in what they considered to be the best interests of their school.

WADHAM B. WINCKWORTH.